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Report on official control of contaminants in Mackerel and Herring, year 2018.

Summery

In 2018 The Food and Veterinary Authority sampled 720 whole fishes of different size and weight of Mackerel (*Scomber scombrus*) and 350 whole fishes of Herring (*Clupea harengus*). The samples were pooled to 72 samples of Mackerel and 35 samples of Herring. The samples were obtained from the Faroe Islands fishing area Vb, Iceland grounds Va, North Sea IVa, Norwegian Sea IIa and South-East Greenland XIVb.

No samples exceeded existing regulatory limits. There were no concerns for human health.

Background

The Faroese Food and Veterinary Authority conducts an official control programme to verify that foodstuffs comply with the maximum levels for certain contaminants. The monitoring is associated with the Faroese legal framework, which implements regulations from the European Commission. The sampling procedure and methods for fishery products was based on Faroese Departmental order No. 148/2009¹. The interpretation of results was done according to Faroese Departmental order no. 147/2009² sets the maximum levels for certain contaminants in foodstuffs.

Methodology

The official inspector sampled 720 whole fishes of different size and weight of Mackerel (*Scomber scombrus*) and 350 whole fishes of Herring (*Clupea harengus*) from Faroese business operators.

¹Kunngerð 148 frá 1. desember 2009 um royndartøku og greiningarhættir, ið skulu nýtast í samband við alment eftirlit við ávísum dálkandi evnum í matvørum (implements Regulations (EC) No 1883/2006 and 333/2007) .

² Kunngerð 147 frá 1. desember 2009 um áseting av markviðum fyri ávís dálkandi evni í matvørum (implements Regulation (EC) No 1881/2006).



Analyses and regulatory limits

The samples were analysed for heavy metals³, PCBs, Dioxins⁴, pesticides screening (organochlorine Pesticides and Pyrethroids) and radioactivity. In table 1 the parameters and the respective regulatory limits are shown.

Table 1, regulatory limits for contaminants

Contaminants analysed	Unit (w.w)	Regulatory limits (wet weight)
Total 6 DIN-PCBs incl. LOQ ng/g *	ng/g	75
Dioxin, 17 PCDD/F WHO(2005)TEQ**incl.LOQ	pg/g	3,5
Dioxin+PCBs, 17 PCDD/F + 12 PCBs WHO(2005) TEQ incl.LOQ	pg/g	6,5
Pesticides screening ***	mg/kg	-
Cadmium (Cd)	mg/kg	0,05/0,1
Lead (Pb)	mg/kg	0,3
Mercury (Hg)	mg/kg	0,5
Inorganic arsenic	mg/kg	-
Radio activity, Cs-134, Cs-137, I-131	Bp/kg	-

*Total 6 DIN-PCB: PCB28, PCB52, PCB101, PCB138, PCB153, PCB180. **TEQ (toxic equivalent factors) WHO 2005

***Pesticides screening parameters are in Annex 1.

Samples

The fish samples were taken from frozen blocks, approximately 10 fishes for one sample. Bagged samples of representative fish of same size were collected in one large plastic bag. The plastic bags were labelled to ensure traceability. The laboratory then homogenises the muscle from the fish to an aggregate sample of 1kg.

The samples were pooled to 72 samples of Mackerel (250-600g, WR) and 35 samples of Herring (380g+ WR and flaps).

The samples were kept frozen at the laboratories until analysed.

Procedures concerning collection of official samples of fishery products, which are to be analysed for contaminants are laid down in FFVA file number 12/00492.

³ The analyses were performed by ICP-MS (ISO 17294-1,2 2005 mod) at Food and Veterinary Agency, 100 Torshavn, Faroe Islands. DANAK reg.no.303.

⁴ The analyses were performed by high resolution gas chromatography/high resolution mass spectroscopy (HRGC/HRMS) at Eurofins/ERGO, Hamburg, Germany DANAK reg.no.222. Dioxins (PCDD/F 17 congeners): (PCDDs): 2,3,7,8-TCDD; 1,2,3,7,8-PeCDD; 1,2,3,4,7,8-HxCDD; 1,2,3,6,7,8- HxCDD; 1,2,3,7,8,9- HxCDD; 1,2,3,4,6,7,8- HpCDD; OCDD. Dibenzofurans (PCDFs): 2,3,7,8-TCDF; 1,2,3,7,8-PeCDF; 2,3,4,7,8-PeCDF; 1,2,3,4,7,8-HxCDF; 1,2,3,6,7,8- HxCDF; 1,2,3,7,8,9- HxCDF; 2,3,4,6,7,8-HxCDF; 1,2,3,4,6,7,8- HpCDF; 1,2,3,4,7,8,9-HpCDF; OctaCDF. Dioxin-like PCBs (12WHO-PCBs): PCB 77; PCB 81; PCB 126; PCB 169; PCB 105; PCB 114; PCB 118; PCB 123; PCB 156; PCB 157; PCB 167; PCB 189. Total 6 DIN-PCB: PCB 28, PCB 52, PCB 101, PCB 138, PCB 153, PCB 180.



Results

The results from the control of trace elements in pooled samples from Mackerel and Herring contained low levels of lead, cadmium and mercury. Table 2 presents the mean values of heavy metals in different fish species analysed in 2018.

Table 2, mean values of heavy metals in Herring and Mackerel, 2018.

Species	n	Inorganic Arsenic	Lead, Pb	Cadmium, Cd	Mercury, Hg	Unit
Herring	35	<0,05	<0,02	0,01	0,07	mg/kg
Mackerel	72	<0,05	<0,02	0,01	0,05	mg/kg

None of the samples contained levels of PCB, dioxins or dioxinlike-PCBs above current limits.

The levels of contaminants are summarized in tables; Mackerel in table 3a and 3b and Herring in table 4a and 4b. Annex 1 shows an overview of the pesticide screening. (Certified reports from the laboratory are in FFVA file 18/00078).

Conclusion

In general, the samples were in line with existing regulatory limits. There were no concerns for human health.



Table 3.a. Levels of contaminants in Mackerel, *Scomber scombrus* , Year 2018.

ID			F218-00126	F218-00141	F218-00903	F218-00904	Regulatory limits
Fishing areas			FAO 27,IVa	FAO27	14 bII, EAC	FAO 27, Va	
Species, weight			Mackerel 400-600g	Mackerel 300-500g	Mackerel 400-600g	Mackerel 400-600g	
Date			19.12.2017	07.01.2018	09.08.2018	11.09.2018	
Fat content		g/100g	23,2-24,5	23-23,8	19,9-21,0	28,7-30,0	
Total 6 DIN-PCB	Total 6 DIN-PCBs incl. LOQ ng/g	ng/g	4	6	4	3	75
Dioxins	WHO(2005)-PCDD/F TEQ incl. LOQ	pg/g	0,4	0,4	0,4	0,3	3,5
Dioxins and PCBs	WHO(2005)-PCDD/F+PCBs TEQ incl. LOQ	pg/g	0,8	1,1	0,7	0,7	6,5
	Pesticides OC (incl. Pyrethroides)		screening	screening	screening	screening	
Arsenic	Inorganic arsenic (As) mg/kg	mg/kg	<0,05	<0,05	<0,05	<0,05	
Radioactivity	Cs-137, Cs-134, I-131	Bq/kg	<10	<10	<10	<10	

Total 6 DIN-PCB: PCB 28, PCB 52, PCB 101, PCB 138, PCB 153, PCB 180.

Dioxin-like PCBs (12WHO-PCBs) : PCB 77; PCB 81; PCB 126, PCB 169; PCB 105; PCB 114; PCB 118; PCB 123; PCB 156; PCB 157; PCB 167, PCB 189.

Dioxins (PCDD/F 17 congeners): (PCDDs): 2,3,7,8-TCDD; 1,2,3,7,8-PeCDD; 1,2,3,4,7,8-HxCDD; 1,2,3,6,7,8- HxCDD; 1,2,3,7,8,9- HxCDD; 1,2,3,4,6,7,8- HpCDD; OCDD. Dibenzofurans (PCDFs): 2,3,7,8-TCDF; 1,2,3,7,8-PeCDF; 2,3,4,7,8-PeCDF; 1,2,3,4,7,8-HxCDF; 1,2,3,6,7,8- HxCDF; 1,2,3,7,8,9- HxCDF; 2,3,4,6,7,8-HxCDF; 1,2,3,4,6,7,8- HpCDF; 1,2,3,4,7,8,9-HpCDF; OctaCDF.

Table 3.b. Levels of contaminants in Mackerel, *Scomber scombrus* , Year 2018.

ID			F218-01186	F218-01274	F218-01319	F218-01057	Regulatory limits
Fishing areas			FAO 27,Vla	FAO27	FAO 27	FAO 27	
Species, weight			Mackerel 300-500g	Mackerel 250+g	Mackerel 400-600g	Mackerel 400-600g	
Date			18.10.2018	04.05.2018	04.09.2018	02.09.2018	
Fat content		g/100g	19,6-22,8	6,5-7,0	25,1-29,5	25,7-27,1	
Total 6 DIN-PCB	Total 6 DIN-PCBs incl. LOQ ng/g	ng/g	4	4	3	4	75
Dioxins	WHO(2005)-PCDD/F TEQ incl. LOQ	pg/g	0,3	0,4	0,4	0,4	3,5
Dioxins and PCBs	WHO(2005)-PCDD/F+PCBs TEQ incl. LOQ	pg/g	0,7	0,8	0,7	0,8	6,5
	Pesticides OC (incl. Pyrethroides)		screening	screening	screening	screening	
Arsenic	Inorganic arsenic (As) mg/kg	mg/kg	<0,1	<0,1	<0,1	<0,05	
Radioactivity	Cs-137, Cs-134, I-131	Bq/kg	<10	<10	<10	<10	

Total 6 DIN-PCB: PCB 28, PCB 52, PCB 101, PCB 138, PCB 153, PCB 180.

Dioxin-like PCBs (12WHO-PCBs): PCB 77; PCB 81; PCB 126, PCB 169; PCB 105; PCB 114; PCB 118; PCB 123; PCB 156; PCB 157; PCB 167, PCB 189.

Dioxins (PCDD/F 17 congeners): (PCDDs): 2,3,7,8-TCDD; 1,2,3,7,8-PeCDD; 1,2,3,4,7,8-HxCDD; 1,2,3,6,7,8- HxCDD; 1,2,3,7,8,9- HxCDD; 1,2,3,4,6,7,8- HpCDD; OCDD. Dibenzofurans (PCDFs): 2,3,7,8-TCDF; 1,2,3,7,8-PeCDF; 2,3,4,7,8-PeCDF; 1,2,3,4,7,8-HxCDF; 1,2,3,6,7,8- HxCDF; 1,2,3,7,8,9- HxCDF; 2,3,4,6,7,8-HxCDF; 1,2,3,4,6,7,8- HpCDF; 1,2,3,4,7,8,9-HpCDF; OctaCDF.

Table 3. Levels of heavy metals in muscle from Mackerel, *Scomber scombrus* , Year 2018.

Id		Year	Species	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Unit
F218-00126	1	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00126	6	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00126	7	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00126	4	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00126	9	2018	Mackerel	<0,02	0,01	0,03	mg/kg
F218-00126	5	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00126	8	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00126	2	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00126	3	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00141	1	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00141	2	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00141	4	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00141	7	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00141	9	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00141	3	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00141	5	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00141	6	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00141	8	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-00903	3	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-00903	1	2018	Mackerel	<0,02	0,01	0,06	mg/kg

Id		Year	Species	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Unit
F218-00903	2	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-00903	4	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-00903	7	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-00903	9	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-00903	5	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00903	6	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-00903	8	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00904	1	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00904	2	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00904	4	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00904	7	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00904	9	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00904	3	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-00904	5	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00904	6	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-00904	8	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-01057	1	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01057	3	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01057	6	2018	Mackerel	<0,02	0,01	0,03	mg/kg
F218-01057	8	2018	Mackerel	<0,02	0,01	0,03	mg/kg
F218-01057	2	2018	Mackerel	<0,02	0,01	0,03	mg/kg

Id		Year	Species	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Unit
F218-01057	4	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01057	5	2018	Mackerel	<0,02	0,01	0,03	mg/kg
F218-01057	7	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01057	9	2018	Mackerel	<0,02	0,01	0,03	mg/kg
F218-01186	1	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01186	3	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-01186	2	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-01186	5	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-01186	4	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01186	6	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-01186	9	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-01186	7	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-01186	8	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-01274	2	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-01274	3	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-01274	5	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-01274	8	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-01274	1	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-01274	4	2018	Mackerel	<0,02	0,01	0,07	mg/kg
F218-01274	6	2018	Mackerel	<0,02	0,01	0,07	mg/kg
F218-01274	7	2018	Mackerel	<0,02	0,01	0,05	mg/kg

Id		Year	Species	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Unit
F218-01274	9	2018	Mackerel	<0,02	0,01	0,06	mg/kg
F218-01319	1	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01319	2	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01319	4	2018	Mackerel	<0,02	0,01	0,05	mg/kg
F218-01319	7	2018	Mackerel	<0,02	0,01	0,03	mg/kg
F218-01319	9	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01319	3	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01319	5	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01319	6	2018	Mackerel	<0,02	0,01	0,04	mg/kg
F218-01319	8	2018	Mackerel	<0,02	0,01	0,04	mg/kg

Table 4a. Levels of contaminants in Herring , *Clupea harengus*, Year 2018.

ID			F218-01058	F218-01185	F218-01275	F218-01325	F218-01385	Regulatory limits
Fishing areas			FAO, 2a2	FAO 27,2a	FAO 27	FAO 27, 2a	FAO 27	
Species			Herring	Herring	Herring	Herring	Herring	
Weight			380g+ (WR)	380g+ (WR)	flaps	380g+	Butterflied fillets	
Date			10.10.2018	23.09.2018	31.10.2018	02.12.2018	27.11.2018	
Fat content		g/100g	18,1-19,1	17,2-20,2	15,4-18,2	16,6-17,2	15,3-18,5	
Total 6 DIN-PCB	Total 6 DIN-PCBs incl. LOQ ng/g	ng/g	6	6	5	6	6	75
Dioxins	WHO(2005)-PCDD/F TEQ incl. LOQ	pg/g	0,5	0,5	0,5	0,5	0,6	3,5
Dioxins+PCBs	WHO(2005)-PCDD/F+PCBs TEQ incl. LOQ	pg/g	0,9	1,0	0,9	1,0	1,1	6,5
	Pesticides OC (incl. Pyrethroides) screening		screening	screening	screening	screening	screening	
Arsenic	Inorganic arsenic (AsIII+AsV)	mg/kg	<0,05	<0,05	<0,05	<0,05	<0,05	
Radioactivity	Cs-137, Cs-134, I-131	Bq/kg	<10	<10	<10	<10	<10	

Total 6 DIN-PCB: PCB 28, PCB 52, PCB 101, PCB 138, PCB 153, PCB 180.

Dioxin-like PCBs (12WHO-PCBs) : PCB 77; PCB 81; PCB 126, PCB 169; PCB 105; PCB 114; PCB 118; PCB 123; PCB 156; PCB 157; PCB 167, PCB 189.

Dioxins (PCDD/F 17 congeners): (PCDDs): 2,3,7,8-TCDD; 1,2,3,7,8-PeCDD; 1,2,3,4,7,8-HxCDD; 1,2,3,6,7,8- HxCDD; 1,2,3,7,8,9- HxCDD; 1,2,3,4,6,7,8- HpCDD; OCDD. Dibenzofurans (PCDFs): 2,3,7,8-TCDF; 1,2,3,7,8-PeCDF; 2,3,4,7,8-PeCDF; 1,2,3,4,7,8-HxCDF; 1,2,3,6,7,8- HxCDF; 1,2,3,7,8,9- HxCDF; 2,3,4,6,7,8-HxCDF; 1,2,3,4,6,7,8- HpCDF; 1,2,3,4,7,8,9-HpCDF; OctaCDF.

Table 4b. Levels of heavy metals in muscle from Herring, *Clupea harengus*, Year 2018.

Id		Year	Species	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Unit
F218-01058	4	2018	Herring	<0,02	0,006	0,06	mg/kg
F218-01058	6	2018	Herring	<0,02	0,004	0,08	mg/kg
F218-01058	9	2018	Herring	<0,02	0,005	0,07	mg/kg
F218-01058	1	2018	Herring	<0,02	0,005	0,05	mg/kg
F218-01058	5	2018	Herring	<0,02	0,006	0,07	mg/kg
F218-01058	7	2018	Herring	<0,02	0,006	0,07	mg/kg
F218-01058	8	2018	Herring	<0,02	0,005	0,06	mg/kg
F218-01058	2	2018	Herring	<0,02	0,005	0,08	mg/kg
F218-01058	3	2018	Herring	<0,02	0,005	0,07	mg/kg
F218-01185	1	2018	Herring	<0,02	0,005	0,05	mg/kg
F218-01185	2	2018	Herring	<0,02	0,007	0,07	mg/kg
F218-01185	4	2018	Herring	<0,02	0,006	0,06	mg/kg
F218-01185	7	2018	Herring	<0,02	0,005	0,08	mg/kg
F218-01185	9	2018	Herring	<0,02	0,006	0,06	mg/kg
F218-01185	3	2018	Herring	<0,02	0,006	0,07	mg/kg
F218-01185	5	2018	Herring	<0,02	0,006	0,06	mg/kg
F218-01185	6	2018	Herring	<0,02	0,004	0,05	mg/kg
F218-01185	8	2018	Herring	<0,02	0,006	0,06	mg/kg
F218-01275	2	2018	Herring	<0,02	0,004	0,06	mg/kg
F218-01275	3	2018	Herring	<0,02	0,004	0,06	mg/kg
F218-01275	5	2018	Herring	<0,02	0,003	0,05	mg/kg
F218-01275	8	2018	Herring	<0,02	0,005	0,07	mg/kg
F218-01275	1	2018	Herring	<0,02	0,004	0,06	mg/kg
F218-01275	4	2018	Herring	<0,02	0,004	0,07	mg/kg
F218-01275	6	2018	Herring	<0,02	0,005	0,07	mg/kg
F218-01275	7	2018	Herring	<0,02	0,005	0,07	mg/kg
F218-01275	9	2018	Herring	<0,02	0,003	0,06	mg/kg
F218-01325	2	2018	Herring	<0,02	0,005	0,07	mg/kg

Id		Year	Species	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Unit
F218-01325	4	2018	Herring	<0,02	0,006	0,06	mg/kg
F218-01325	5	2018	Herring	<0,02	0,005	0,07	mg/kg
F218-01325	1	2018	Herring	<0,02	0,006	0,07	mg/kg
F218-01325	3	2018	Herring	<0,02	0,005	0,07	mg/kg
F218-01385	1	2018	Herring	<0,02	0,005	0,06	mg/kg
F218-01385	3	2018	Herring	<0,02	0,006	0,05	mg/kg
F218-01385	2	2018	Herring	<0,02	0,007	0,08	mg/kg

ANNEX 1.

Pesticides OC (incl. Pyrethroides) screening SP101-6* Organochlorine Pesticides and Pyrethroids Method DFG S19 Mini-Silica Gel-Eluates 1+2	Pesticides OC (incl. Pyrethroides) screening	Pesticides OC (incl. Pyrethroides) screening
Parameters LOQ Aclonifen 0.01 mg/kg Acrinathrin 0.01 mg/kg Aldrin 0.002 mg/kg Benfluralin 0.002 mg/kg Bifenox 0.02 mg/kg Bifenthrin 0.01 mg/kg Binapacryl 0.01 mg/kg Bromocyclen 0.01 mg/kg Bromoxynil-octanoate 0.01 mg/kg Butralin 0.02 mg/kg Chlordane, cis- 0.002 mg/kg Chlordane, oxy- 0.002 mg/kg Chlordane, trans- 0.002 mg/kg Chlorfenapyr 0.005 mg/kg Chlorfenprop-methyl 0.01 mg/kg Chlorfenson 0.01 mg/kg Chloroneb 0.02 mg/kg Chlorothalonil 0.01 mg/kg Chlorthal-dimethyl 0.002 mg/kg Cyfluthrin 0.01 mg/kg Cyhalothrin, lambda- 0.01 mg/kg Cypermethrin 0.01 mg/kg Cypermethrin, alpha- 0.01 mg/kg DDD, o,p- 0.002 mg/kg DDD, p,p- 0.002 mg/kg DDE, o,p- 0.002 mg/kg DDE, p,p'- 0.002 mg/kg DDT, o,p'- 0.002 mg/kg DDT, p,p- 0.002 mg/kg Deltamethrin 0.01 mg/kg Diallate 0.1 mg/kg Dibromobenzophenone, p,p- 0.01 mg/kg Dichlobenil 0.005 mg/kg Dichlone 0.02 mg/kg Dichlorobenzophenone, o,p- 0.01 mg/kg Dichlorobenzophenone, p,p- 0.01 mg/kg Dicloran 0.002 mg/kg	Dicofof, o,p- 0.01 mg/kg Dicofof, p,p- 0.01 mg/kg Dieldrin 0.002 mg/kg Dienochlor 0.01 mg/kg Dinitramine 0.005 mg/kg Dinobuton 0.01 mg/kg Dinocap 0.1 mg/kg Endosulfan sulphate 0.004 mg/kg Endosulfan, alpha- 0.002 mg/kg Endosulfan, beta- 0.002 mg/kg Endrin 0.003 mg/kg Endrin ketone 0.01 mg/kg Esfenvalerate 0.01 mg/kg Ethalfuralin 0.005 mg/kg Etridiazole 0.01 mg/kg Fenfluthrin 0.01 mg/kg Fenpropathrin 0.01 mg/kg Fenson 0.01 mg/kg Fenvalerate (RR-/SS-Isomers) 0.01 mg/kg Fenvalerate (RS-/SR-Isomers) 0.01 mg/kg Flubenzimine 0.005 mg/kg Fluchloralin 0.005 mg/kg Flucythrinate 0.01 mg/kg Flumetralin 0.005 mg/kg Fluorodifen 0.01 mg/kg Fluoroimide 0.02 mg/kg Genite 0.01 mg/kg Halfenprox 0.01 mg/kg HCH, alpha- 0.002 mg/kg HCH, beta- 0.004 mg/kg HCH, delta- 0.002 mg/kg HCH, epsilon- 0.002 mg/kg Heptachlor 0.002 mg/kg Heptachlor epoxide, cis- 0.002 mg/kg Heptachlor epoxide, trans- 0.002 mg/kg Hexachlorobenzene (HCB) 0.002 mg/kg Ioxynil-Octanoate 0.01 mg/kg Isobenzan 0.002 mg/kg Isodrin 0.002 mg/kg Isopropalin 0.005 mg/kg Lindane (gamma-HCH) 0.002 mg/kg	Methoxychlor 0.01 mg/kg Mirex 0.002 mg/kg Nitrapyrin 0.01 mg/kg Nitrofen 0.003 mg/kg Nonachlor, cis- 0.002 mg/kg Nonachlor, trans- 0.002 mg/kg Octachlorstyrene 0.01 mg/kg Oxyfluorfen 0.005 mg/kg Pendimethalin 0.005 mg/kg Pentachloranisole 0.002 mg/kg Pentachloroaniline 0.002 mg/kg Pentachlorobenzene 0.005 mg/kg Pentachlorothioanisole 0.002 mg/kg Permethrin 0.01 mg/kg Plifenate 0.01 mg/kg Polychloroterpene (Camphechlor) 0.05 mg/kg Profluralin 0.002 mg/kg Quintozene 0.002 mg/kg S 421 0.005 mg/kg tau-Fluvalinate 0.01 mg/kg Tecnazene 0.002 mg/kg Tefluthrin 0.01 mg/kg Tetradifon 0.005 mg/kg Tetrasul 0.01 mg/kg Tralomethrin 0.02 mg/kg Transfluthrin 0.01 mg/kg Triallate 0.01 mg/kg Trichloronat 0.005 mg/kg Trifluralin 0.002 mg/kg