

## Northern Ireland 2007 Milk Results

Group of substances	Compounds	Matrix	MRL µg/kg	Planned Numbers	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
A6	Chloramphenicol	Milk	Not set	46	46	0.03	46			
A6	Nitroimidazoles	Milk	Not set	46	46	0.2 - 0.88	46			
B1	Antimicrobial	Milk	Various	92	91	Various	91			
B1	Cephalosporins	Milk	Various	52	52	15 - 38	52			
B1	Quinolones	Milk	100	40	40	Various	40			
B1	Sulphonamides	Milk	100µg/l	25	25	Various	25			
B2a	Avermectins	Milk	Not set	42	42	20 - 40	42			
B2a	Benzimidazoles	Milk	Various	11	12	Various	12			
B2a	Levamisole	Milk	Not set	11	12	1	12			
B2e	Phenylbutazone	Milk	Not Set	28	28	1.03	28			
B2e	Flunixin	Milk	40	9	9	2	9			
B3a	Organochlorines/ PCP	Milk	Not set	6	6	0.5	6			
B3b	Organophosphate	Milk	Not set	4	4	1	4			
B3c	Cadmium/Lead	Milk	20	5	4	5-20	4			
B3d	Aflatoxins	Milk	0.05 (M <sub>1</sub> )	14	28	0.025	28			
<b>Total Samples</b>				<b>130</b>						
<b>Total Analyses</b>				<b>431</b>						

Samples in blue analysed for more than one substance

## Northern Ireland 2007 Egg Results

Group of substances	Compounds	Matrix	MRL µg/kg	Planned Numbers	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
A6	Chloramphenicol	Eggs	Not Set	10	10	0.03	10			
A6	Dimetridazole	Eggs	Not Set	10	10	0.31 - 1.09	10			
A6	Nitrofurans	Eggs	Not Set	10	10	0.14 - 0.21	10			
B1	Antimicrobial Screen	Eggs	Not Set	20	20	Various	20			
	Tetracyclines	Eggs	Not Set	10	10	50	10			
B2a	Benzimidazoles	Eggs (free range only)	400 flubendazole	2	2	25	2			
B2b	Nicarbazin	Eggs	Not Set	14	16	50	16			
B2b	Nicarbazin			4	4	50	4			
B2b	Ionophores Including Lasalocid	Eggs	150 Lasalocid	16	15	20	15			
B2b	Ionophores Including Lasalocid	Eggs	150 Lasalocid	4	4	20	4			
B2c	Pyrethroids	Eggs		2	0	50	0			
B3a	Organochlorines /PCBs	Eggs	Various Not set	3	3	10	3			
<b>Total Analyses</b>					<b>105</b>					
<b>Total Samples</b>					<b>43</b>					

## Northern Ireland 2007 Fish Results

Group of substances	Compounds	Species	Matrix	MRL $\mu\text{g}/\text{kg}$	Planned Numbers	Number analysed	LOQ ( $\mu\text{g}/\text{kg}$ )	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level ( $\mu\text{g}/\text{kg}$ )	Concentration detected where samples were above the MRL/MRPL/Action Level ( $\mu\text{g}/\text{kg}$ )	Note
B3e	Dyes	Trout	skin+muscle	Not Set	6	5	2	5			
B3e	Dyes	Salmon	skin+muscle	Not Set	2	1	2	1			

## Northern Ireland 2007 Poultry Results On farm

Group of substances	Compounds	Species	Matrix	MRL $\mu\text{g}/\text{kg}$	Planned Numbers	Number analysed	LOQ ( $\mu\text{g}/\text{kg}$ )	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level ( $\mu\text{g}/\text{kg}$ )	Concentration detected where samples were above the MRL/MRPL/Action Level ( $\mu\text{g}/\text{kg}$ )	Note
A5	Beta-agonists	Broilers	Feed	Not set	24	21	0.24 - 1.11	21			
A5	Beta-agonists	Hens			0	0	0.24 - 1.11	0			
A5	Beta-agonists	Turkeys			1	0	0.24 - 1.11	0			
A6	Dimetridazole	Broilers	Feed	Not set	24	22	1.6 - 2.7	22			
A6	Dimetridazole	Turkeys			1	0	1.6 - 2.7	0			
A6	Nitrofurans	Broilers	Feed	Not set	24	18	1.4 - 3.2	18			
A6	Nitrofurans	Turkeys			1	0	1.4 - 3.2	0			
<b>Total Samples</b>					75						

## Northern Ireland 2006 Poultry Results Slaughterhouse

Group of substances	Compounds	Species	Material	MRL µg/kg	Nos Samples Northern Ireland	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
A1	DES	Broilers	Liver/serum	Not set	17	21	2	21			
A1	DES	Turkeys	Liver/serum	Not set	1	1	2	1			
A3	Trenbolone	Broilers	Liver/serum	Not set	17	21	2	21			
A3	Trenbolone	Turkeys	Liver/serum	Not set	1	1	2	1			
A4	Zeranol	Broilers	Liver/serum	Not set	24	29	2	29			
A4	Zeranol	Turkeys	Liver/serum	Not set	1	1	2	1			
A5	B-agonists	Broilers	Liver	Not set	51	48	0.08 - 0.83	48			
A6	B-agonists	Hens	Liver	Not set	1	1	0.08 - 0.84	1			
A5	B-agonists	Turkeys	Liver	Not set	3	3	0.08 - 0.83	3			
A6	Chloramphenicol	Broilers	Muscle	Not Set	95	102	0.04	102			
A6	Chloramphenicol	Hens	Muscle	Not Set	1	1	0.04	1			
A6	Chloramphenicol	Turkeys	Muscle	Not Set	5	5	0.04	5			
A6	Dimetridazole	Broilers	Liver	Not Set	83	82	0.4 - 2.5	82			
A6	Dimetridazole	Hens	Liver	Not Set	1	1	0.4 - 2.5	1			
A6	Dimetridazole	Turkeys	Liver	Not Set	4	4	0.4 - 2.5	4			
A6	Nitrofurans	Broilers	Muscle	Not Set	95	104	0.08 - 0.27	104			
A6	Nitrofurans	Hens	Muscle	Not Set	1	1	0.08 - 0.27	1			
A6	Nitrofurans	Turkeys	Muscle	Not Set	5	4	0.08 - 0.27	4			
B1	Antimicrobial Screen	Broilers	Muscle	Various	131	131	Various<MRL	131			
B2	Antimicrobial Screen	Hens	Muscle	Various	2	2	Various<MRL	2			
B1	Antimicrobial Screen	Turkeys	Muscle	Various	7	7	Various<MRL	7			
B1	Sulphonamides	Broilers	Muscle	100	33	33	75	33			
B1	Sulphonamides	Turkeys	Muscle	10	2	0	75	0			
B1	Quinolones	Broilers	Muscle	Various	52	53	10	53			
B2	Quinolones	Hens	Muscle	Various	1	1	10	1			
B1	Quinolones	Turkeys	Muscle	Various	3	3	10	3			
B2a	Benzimidazoles	Broilers	Liver	400*	15	16	50-300	16			
B2a	Benzimidazoles	Turkeys	Liver	400*	2	2	50-300	2			
B2a	Levamisole	Broilers	Liver	100	15	16	50	16			
B2a	Levamisole	Turkeys	Liver	100	2	2	50	2			

## Northern Ireland 2006 Poultry Results Slaughterhouse

Group of substances	Compounds	Species	Material	MRL µg/kg	Nos Samples Northern Ireland	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
B2b	Nicarbazin	Broilers	Muscle/Liver	Not Set	34	40	1	27	Liver 8, 19, 30, 49, 50, 55, 82, 89, 106, 145	<b>Liver 262, 433, 605</b> Muscle 16, 12, 59	1
B2b	Ionophores	Broilers	Liver	Not Set	35	36	20	36			
B2b	Ionophores	Turkeys	Liver	Not Set	2	2	20	2			
B2c	Carbamates/Pyrethroids	Broilers	Liver	Not Set	7	7+7	50/10	7+7			
B2c	Carbamates/Pyrethroids	Turkeys	Liver	Not Set	1	1+1	50/10	1+1			
B3a	Organochlorines/PCBs	Broilers	Liver	Various	26	26	10	26			
B3a	Organochlorines/PCBs	Hens	Liver	Not set	0		10				
B3a	Organochlorines/PCBs	Turkeys	Liver	Not set	2	2	10	2			
B3c	Cadmium	Broilers	Liver	500	8	8	10	0	Cd, 33, 37, 39(2), 40, 60, 75, 82,		
B3c	Lead	Broilers	Liver	500	8	8	70	4	Pb, 70, 100(2) 120		
B3c	Cadmium	Turkeys	Liver	500	0	0	10	0			
	Lead			500	0	0	70	0			
B3d	Aflatoxins	Broilers	Liver	Various	2	2	5	2			

Notes

1	Nicarbazin detected in the liver of three sample above the MRL. The corresponding muscle samples were below the MRL
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Northern Ireland 2007 Cattle Results On Farm

Group of Substances	Compounds	Matrix	Species	MRL µg/kg or µg/l	Planned Numbers	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
A1	Stilbenes	Urine	Cattle (y.b.)	Not set	25	22	0.43-0.59	22			
A1	Stilbenes	Urine	Cows OTMS	Not set	4	6	0.43-0.59	6			
A2	Thyrostats	Serum/Urine	Cattle (y.b.)	Not set	25	24	1.8 - 7.6	24			
A2	Thyrostats	Serum/Urine	Cows OTMS	Not set	4	5	1.8 - 7.6	5			
A3	Trenbolone	Urine	Cattle (all)	Not set	50	47	0.63	47			
A3	Trenbolone	Urine	Cows OTMS	Not set	7	6	0.63	6			
A3	Progesterone	Serum	Cattle (m)	Not set	30	30	0.35	29		0.68	1
A3	Oestradiol	Serum	Cattle (m)	Not set	61	53	0.02	53			
A3	Testosterone	Serum	Cattle(f)	Not set	40	25	0.4	25			
A3	Testosterone	Serum	Cows OTMS	Not set	7	18	0.4	18			
A3	Nortestosterone	Urine	Cattle (m)	Not set	61	58	0.37	57		17.1	2
A3	Gestagens	Serum	Cattle (y.b.)	Not set	40	35	0.24 - 0.57	35			
A3	Gestagens	Serum	Cows OTMS	Not set	7	8	0.24 - 0.57	8			
A3	Boldenone	Urine	Cattle (y.b.)	Not set	25	19	0.41 - 0.5	16	1.1, 1.3, 1.6		3
A3	Boldenone	Urine	Cows OTMS	Not set	11	12	0.41 - 0.5	12			
A4	Zeranol	Urine	Cattle (y.b.)	Not set	25	24	0.44	24			
A4	Zeranol	Urine	Cows OTMS	Not set	4	4	0.44	4			
A5	Beta agonists	Feed	Cattle (y.b.)	Not set	35	22	1.4 - 8.03	22			
A5	Beta agonists	Feed	Cows OTMS	Not set	7	11	1.4 - 8.03	11			
A5	Beta agonists	Urine	Cattle (y.b.)	Not set	31	27	0.1 - 0.93	27			
A5	Beta agonists	Urine	Cows OTMS	Not set	3	13	0.1 - 0.93	13			
A6	Chloramphenicol	Feed/Urine	Cattle(all)	Not set	25	17	0.06	17			
A6	Chloramphenicol	Feed/Urine	Cows OTMS	Not set	11	17	0.06	17			
A6	Nitrofurans	Feed	Cattle(all)	Not set	25	29	1.4 - 3.2	29			
A6	Nitrofurans	Feed	Cows OTMS	Not set	4	1	1.4 - 3.2	1			
	Total Samples				567						

## Northern Ireland 2007 Cattle Results Slaughter House

Group of Substances	Compounds	Matrix	Species	MRL µg/kg or µg/l	Planned Numbers	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
A1	Stilbenes	Urine	Cattle (y.b)	Not Set	25	24	0.43-0.59	24			
A1	Stilbenes	Urine	Cows OTMS	Not Set	4	5	0.43-0.59	5			
A2	Thyrostats	Urine	Cattle (y.b.)	Not Set	25	24	1.8 - 7.6	24			
A2	Thyrostats	Urine	Cows OTMS	Not Set	4	5	1.8 - 7.6	5			
A3	Trenbolone	Urine	Cattle (all)	Not set	47	45	0.63	45			
A3	Trenbolone	Urine	Cows OTMS	Not Set	7	9	0.63	9			
A3	Progesterone	Serum	Cattle (m)	Not set	30	27	0.35	26		0.64	4
A3	Oestradiol	Serum	Cattle (m)	Not set	37	36	0.02	36			
A3	Testosterone	Serum	Cattle(f)	Not set	37	34	0.4	34			
A3	Testosterone	Serum	Cows OTMS	Not Set	7	9	0.4	9			
A3	Nortestosterone	Urine	Cattle (all)	Not set	47	49	0.37	49			
A3	Gestagens	Kidney fat	Cattle (y.b.)	Not set	37	37	0.29 - 1.47	37			
A3	Gestagens	Kidney fat	Cows OTMS	Not Set	7	6	0.29 - 1.47	6			
A3	Boldenone	Urine	Cattle (y.b)	Not set	25	30	0.41 - 0.5	30			
A3	Boldenone	Urine	Cows OTMS	Not Set	11	7	0.41 - 0.5	7			
A4	Zeranol	Urine	Cattle (y.b)	Not Set	25	22	0.44	22			
A4	Zeranol	Urine	Cows OTMS	Not Set	4	6	0.44	6			
A5	Beta agonists	Liver/retina	Cattle (y.b)	Not Set	88	82/82	0.12 - 1.21	82/82			
A5	Beta agonists	Liver/retina	Cows OTMS	Not Set	7	13/13	0.12 - 1.21	13/13			
A6	Chloramphenicol	Kidney	Cattle (y.b)	Not set	25	27	0.06	27			
A6			Cows OTMS	Not set	12	12	0.06	12			
A6	Dimetridazole	Kidney	Cattle (y.b)	Not set	17	15	0.7 - 1.8	15			
A6	Nitrofurans	Kidney	Cattle	Not set	25	26	0.1 - 0.17	26			
A6	Nitrofurans	Kidney	Cows OTMS	Not set	4	2	0.1 - 0.17	2			
B1	Antibacterial substances	Kidney	Cattle	Various	182	174	Various<MR	174			



B1	Antibacterial substances		Cows OTMS	Various	36	40	Various<MR	40			
B1	Sulphonamides	Kidney	Cattle	100	29	28	75	28			
B2a	Benzimidazoles	Liver	Cattle (all)	Various	57	52	50 - 300	52			
B2a	Avermectins	Liver	Cattle (all)	Various	57	50	15 - 100	49	22		
B2a	Levamisole	Liver	Cattle (all)	100	40	38	50	38			
B2b	Ionophores	Liver	Calves	Not Set	0	0	20	0			
B2c	Pyrethroids	Kidney fat	Cattle	Various	5	5	10	5			
B2d	Sedatives/ betablockers	Liver/kidney	Cattle	Not Set	7	6	5 - 20	6			
B2e	Carprofen/vedaprofen	Kidney/Liver	Cattle	Not set	29	29	500	29			
B2e	Carprofen/vedaprofen	Kidney/Liver	Cows OTMS	Not Set	10	6	500	6			
B2e	Phenylbutazone	Plasma	Cattle	Not set	33	30	0.11	30			
B2e	Phenylbutazone	Plasma	Cows OTMS	Not Set	10	7	0.11	7			
B2e	Flunixin	Liver	Cattle	300	33	34	2	34			
B2f	Dexamethazone/ betamethazone	Liver/Urine	Cattle	2	17	26	0.5	26			
B2f	Dexamethazone/ betamethazone	Liver/Urine	Cows OTMS	2	36	26	0.5	26			
B3a	Organochlorines/ PCBs	Kidney fat	Cattle	Various	12	10	10	10			
B3b	Organophosphorus compounds	Kidney fat	Cattle	Various	34	34	50	34			
B3b	Organophosphorus compounds	Kidney fat	Cows OTMS	Various	4	4	50	4			
B3c	Cadmium Lead	Kidney	Cattle	1000	4	0	10	0	187, 156, 236, 313, 324, 340, 705, 721, 820, 962	<b>1383</b>	5
				500	4	0	70	0			
	Cadmium Lead	Muscle	Cattle	50	4	0	10	0			
				100	4	0	70	0			
	Cadmium	Kidney	Cows OTMS	1000	13	11	10	0			
Lead			500	13	11	70	5	70, 80, 100, 120, 130, 233			
Cadmium Lead	Muscle	Cows OTMS	50	13	11	10	9	46, 48			
			100	13	11	70	10	<b>110</b>	6		
B3d	Aflatoxins	Liver	Cattle	Not set	5	4	5	4			

## Notes

1	Progesterone in serum confirmed above the action level in one male on-farm.
2	$\alpha$ -Nortestosterone was detected in the urine of one female bovine above the agreed VMD action level of 5 $\mu\text{g}/\text{kg}$ in an on-farm sample. Female ruminants can produce $\alpha$ -nortestosterone under during pregnancy. This animal was seven months pregnant at the time of sampling. No further action was carried out.
3	$\alpha$ -Boldenone detected in the urine of three bovine samples collected on-farm, where faecal contamination of urine is easy. All were below the EU action level. No further action was carried out.
4	Progesterone in serum confirmed above the action level in one male at slaughterhouse.
5	Bovine OTM kidney exceeded MRL for cadmium, however, the muscle from the same animal contained 48 $\mu\text{g}/\text{kg}$ - below the MRL.

**Northern Ireland 2007 Pig Results On Farm**

Group of Substances	Compounds	Material to be analysed	Species	MRL µg/kg or µg/l	Planned Numbers	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
A3	Methyltestosterone	Feed	Pigs	Not set	3	3	25	3			
A5	Beta agonists	Feed	Pigs	Not set	4	2	0.84 - 8.0	2			
A6	Nitofurans	Feed	Pigs	Not set	1	1	1.4 - 3.2	1			
A6	Dimetridazole	Feed	Pigs	Not set	2	2	1.6 - 2.7	2			
B2f	Carbadox Olaquinox	Feed	Pigs	Not set	0	2	760 - 770	2			
Total Samples					10						

## Northern Ireland 2007 Pig Results Slaughter House

Group of Substances	Compounds	Material to be analysed	Species	MRL µg/kg or µg/l	Planned Numbers	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
A1	Stilbenes	Urine	Pigs (all)	Not set	9	9	0.39 -0.44	9			
A2	Thyrostats	Urine	Pigs (all)	Not set	9	9	1.9 - 11.7	9			
A3	Altrenogest	Kidney fat	Pigs (all)	Not set	9	9	0.74	9			
A3	Methyltestosterone	Urine	Pigs (all)	Not set	9	9	0.41	9			
A3	Trenbolone	Urine	Pigs (all)	Not set	9	9	0.48	9			
A4	Zeranol	Urine	Pigs (all)	Not set	17	17	0.99	17			
A5	Beta agonists	Liver	Pigs (all)	Not set	32	32	0.11 -0.53	32			
A6	Chloramphenicol	Kidney	Pigs (all)	Not set	22	22	0.05	22			
A6	Dimetridazole	Kidney	Pigs (all)	Not set	20	20	1.6 - 2.7	20			
A6	Nitrofurans metabolites	Kidney	Pigs (all)	Not set	29	29	0.08 - 0.27	29			
B1	Any antimicrobial agent	Kidney	Pigs(all)	Various	71	72	Various<MR	72			
B1	Sulphonamides	Kidney	Pigs(all)	100	71	71	75	71			
B2a	Benzimidazoles	Liver	Pigs	Various	17	17	50 - 300	17			
B2a	Avermectins	Liver	Pigs	Various	17	16	15 - 100	17			
B2b	Ionophores	Liver	Pigs	Not Set	9	9	20	9			
B2c	Pyrethroids	Kidney fat	Pigs	Not Set	6	6	10	6			
B2d	Azaperone	Liver/kidney	Pigs	100 (azaperone)	16	16	5 - 20	16			
Sedatives/ betablockers	Azaperol Propopnyl Promazine Chlorpromazine										
	Carazolol	Liver	Pigs	25	16	16	5	16			

Group of Substances	Compounds	Material to be analysed	Species	MRL µg/kg or µg/l	Planned Numbers	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
B2e NSAIDS	Carprofen Vedaprofen	Kidney/Liver	Pigs	Not Set	3	3	500	3			
B2f Glucocorticoids	Dexamethazone B-methazone	Liver/Urine	Pigs	2	4	4	0.5	4			
B2f	Carbadox as 2- Olaquinox	Liver	Pigs	Not set	5	5	1.5 - 1.7	5			
B3a Organochlorines / PCBs		Kidney fat	Pigs	Various	6	5	10	5			
B3b Organophosphorus compounds		Kidney fat	Pigs	Various	13	12	50	12			
B3c Chemical elements	Cadmium	Kidney	Pigs	1000	1	1	10	0	115		
	Lead				500	1	1	70	1		
	Cadmium	Muscle	Pigs	50	1	1	10	1			
	Lead				100	1	1	70	1		
B3d Mycotoxins	Aflatoxins	Liver	Pigs	Not set	6	6	5	6			
Total Samples					429						

\* Extra samples to be targeted to Northern Ireland  
Samples in blue tested for more than one substance

## Northern Ireland 2007 Sheep Results Slaughter House

Group of Substances	Compounds	Material to be analysed	Species	MRL µg/kg or µg/l	Planned Numbers	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
A1 Stilbenes	DES, hexoestrol, dienioestrol	Urine	Sheep	Not set	3	3	0.36 - 0.47	3			
A2 Thyrostats	DMTU, MTU, PTU, PhTU, TAP, ETU, McpBzl, Thio	Urine	Sheep	Not set	3	3	2.0 - 9.9	3			
A3 Steroids	Nortestosterone	Urine	Sheep	Not set	7	6	0.16 - 0.19	2		<b>α-nortestosterone 1.2, 3.4, 3.9, 6.1 β-nortestosterone 0.2, 0.8</b>	1
	Methyltestostero	Urine	Sheep	Not set	4	4	0.25	4			
	Trenbolone	Urine	Sheep	Not set	7	7	0.45	7			
	Gestagens	Kidney fat	Sheep	Not set	4	4	0.27 - 2.34	4			
A4	Zeranol Taleranol	Urine	Sheep	Not set	3	4	0.71	3	1.2 1.2		2
A5	Beta agonists	Liver	Sheep	Not set	13	12	0.12 - 0.55	12			
A6 Annex IV	Chloramphenicol	Kidney	Sheep	0.3	7	7	0.03	7			
	Dimetridazole	Kidney	Sheep	Not set	5	5	0.26 - 1.04	5			
	Metronidazole Ronidazole										
	Nitrofurans (AOZ,AHD,SEM,	Kidney	Lamb	Not set	11	12	0.09 - 0.13	12			
B1 Antibacterial substances	Any antimicrobial agent	Kidney	Sheep	Various	120	120	Various<MRL	120			
B1 Antibacterial substances	Any antimicrobial agent	Kidney	Goats	Various	0						
B1 Antibacterial substances	Sulphonamides	Kidney	Sheep	100	6	6	75	6			
B2a Anthelmintics	Benzimidazoles	Liver	Sheep	Various	26	26	50 - 300	25	Oxfendazole 30 Fenbendazole 30		
	Avermectins	Liver	Sheep	Various	26	26	15 - 100	25		<b>Doramectin 121.4</b>	3
	Avermectins	Liver	Goats	Various	0	0					
	Levamisole	Liver	Sheep	100	12	11	50	11			
B2b Coccidiostats	Ionophores	Liver	Sheep	Not Set	15	13	20	13			
B2c Pyrethroids		Kidney fat	Sheep	Not Set	25	25	10	25			
B2d	Azaperone	Liver/kidney	Sheep	Not Set	4	4	5 - 20	4			

## Northern Ireland 2007 Sheep Results Slaughter House

Group of Substances	Compounds	Material to be analysed	Species	MRL µg/kg or µg/l	Planned Numbers	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the MRL/MRPL/Action Level (µg/kg)	Concentration detected where samples were above the MRL/MRPL/Action Level (µg/kg)	Note
Sedatives/ betablockers	Azaperol Propionyl promazine Chlorpromazine										
B2e NSAIDS	Carprofen Vedaprofen	Kidney/Liver	Sheep	Not set	2	2	500	2			
B2f Glucocorticoids	Dexamethasone Betamethasone	Liver/Urine	Sheep	Not set	1	1	0.5	1			
B3a Organochlorines / PCBs		Kidney fat	Sheep	Various	6	6	10	6			
B3b Organophos- phorus compounds		Kidney fat	Sheep	Various	26	26	50	26			
B3c Chemical elements	Cadmium	Kidney	Sheep	1000	2	2	10	0	16, 30		
	Lead			500	2	2	70	2			
	Cadmium	Muscle	Sheep	50	2	2	10	2			
	Lead			100	2	2	70	2			
	Cadmium	Kidney	Goats	1000	0	0	10	0			
	Lead			500	0	0	70	0			
B3d	Aflatoxins	Liver	Sheep	Not set	0	0	5	0			
Grand total samples						344					

### Notes

1	$\alpha$ -Nortestosterone detected in the urine of four animals, two also had $\beta$ -nortestosterone. Three were male, but the sex of the the remaining animal was not given.
2	Zeranol & taleranol were detected in one sample, along with the Fusarium metabolites. A model developed in CATTLE suggested that this was a result of naturally-occurring Fusarium toxin metabolism.
3	One liver sample contained doramectin at 121.4 µg/kg (MRL 100 µg/kg)

## Northern Ireland 2007 Horse Results SI

Group of Substances	Compound	Material to be analysed	Species	MRL µg/kg or µg/l	Planned Number	Number analysed	LOQ (µg/kg)	Number Less than LOQ	Concentration detected where samples were below the	Concentration detected where samples were above the	Note
A5	Beta agonists	Liver	Horses	Not set	3	0	0.12 - 1.21				1
A6 Annex IV	Dimetazoleazole	Kidney	Horses	Not set	5	0	0.52 - 1.79				1
B1 Antibacterial substance	Any antimicrobial agent	Kidney	Horses	Various	3	0	Various < MRL				1
B2a Anthelmintics	Benzimidazole	Liver	Horses	Various	0	0	50-300				1
	Avermectin	Liver	Horses	Various	3	0	15 - 100				1
	Levamisole	Liver	Horses	Various	0	0	50				1
B2e	Phenylbutazone	Plasma	Horses	Not set	10	0	0.18				1
B3c Chemicals	Cadmium	Muscle	Horses	200/100	0	0					1
Total					24						

### Notes

1	No horses slaughtered in Northern Ireland during 2007
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## 2007 NI extra testing on National Plan samples

Matrix	Analyte	No of samples analysed	Less than MRL/Action Level	Concentration detected above the MRL/Action Level (µg/kg)	
Cattle urine Young SH	Hormones (22)	194			1
	Zeranol Taleranol	172	171	6.6 12.0	2
	Testosterone	194	180	Male 5.3, 7.2, 8.4, 8.7, 9.2(2), 9.3, 9.7, 16.2, 17.4, 17.7, 18.2, 21.8.	3
	α-Oestradiol	194	191	<b>Male 4.8, 5.3,</b>	4
	α-nortestosterone	145	143	<b>Male 0.6, 1.1</b>	5
Cattle urine OTM SH	Hormones (22)	53			1
	Zeranol Taleranol	47	47		6
	α-nortestosterone	53	50	<b>5.2, 5.7, 11.0</b>	7
Cattle urine Young OF	Hormones (22)	171			1
	Zeranol Taleranol	149	149		8
	Testosterone	171	166	Male 5.3, 5.6, 6.1, 6.7, 10.4	3
	Oestradiol	171	168	<b>Male 10.1, 27.4,</b>	4
	α-Nortestosterone	121	117	<b>Female 8.3, 16.5 34.3 Male 1.5</b>	9
Cattle urine OTM OF	Hormones (22)	29			1
	α-nortestosterone	29	29	<b>8.3</b>	10
Sheep urine SH	Hormones (22)	23			1
	α-Nortestosterone	17	10	<b>Male 1.2, 1.7, Not Given 0.9,</b>	11
	β-nortestosterone	17	16	<b>Not Given 1.0</b>	11
Pig urine SH	Hormones (22)	48			
Broiler SH	Hormones (22)	71			
Turkey SH	Hormones (22)	3			

### Key:

SH	Slaughterhouse
OF	On farm
NSS	National Surveillance Scheme sample
(n)	number of samples with same concentration of analyte
<b>Bold</b>	samples declared positive in excess of MRL or action level
CTC	Chlortetracycline
OTC	Oxytetracycline
PenG	Penicillin G (Benzyl-penicillin)
Enro	Enrofloxacin
SMT	Sulphamethazine
SDZ	Sulphadiazine

### Notes

1	Samples are tested by an LC-MS/MS procedure which covers some 22 unauthorised hormonal growth promoters. The results below indicate the specific compounds detected.
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2	Zeranol & taleranol were detected in eight urine samples. The statistical model to determine whether or not zeranol abuse in cattle has occurred, developed at VSD, was applied to these results. It involves a linear regression analysis of the log10 of the (zeranol + taleranol) concentrations versus log10 of the Fusarium spp. toxin concentrations. Comparison is made to a "normal" population derived from the analysis of more than 8,000 field urine samples from 4 EU Member States (including Northern Ireland). The result of the statistical analysis suggests that zeranol abuse has not occurred and that it has arisen from metabolism of dietary Fusarium spp. toxins in seven of the eight samples. Abuse may have occurred in the seventh (concentrations shown in Table). Investigation underway.
3	Testosterone detected in the urine of male cattle. A tentative Upper Limit of Normality has been established at 5.0 ppb in steer urine. Whilst concentrations above this level does not constitute proof of abuse, if the animals were castrated testosterone may have been administered. Follow-up samples were requested.
4	Oestradiol detected in the urine of male cattle. A tentative Upper Limit of Normality was established at 3.8 ppb in steer urine. Whilst concentrations above this level does not constitute proof of abuse it does suggest that oestradiol may have been administered. Follow-up samples were requested.
5	Urine from two male cattle contained $\alpha$ -nortestosterone. Follow up investigations initiated.
6	Zeranol &/or taleranol were detected in two urine samples. The statistical model to determine whether or not zeranol abuse in cattle has occurred, developed at VSD, was applied to these results. It involves a linear regression analysis of the log10 of the (zeranol + taleranol) concentrations versus log10 of the Fusarium spp. toxin concentrations. Comparison is made to a "normal" population derived from the analysis of more than 8,000 field urine samples from 4 EU Member States (including Northern Ireland). The result of the statistical analysis suggests that zeranol abuse has not occurred and that it has arisen from metabolism of dietary Fusarium spp. toxins.
7	Urine from 3 female OTM cattle contained $\alpha$ -nortestosterone above the VMD 5ppb action level (and a further 10 below the VMD Action Level). All were from breeding cows and all were pregnant at the time of sampling.
8	Zeranol &/or taleranol were detected in one urine sample. The statistical model to determine whether or not zeranol abuse in cattle has occurred, developed at VSD, was applied to these results. It involves a linear regression analysis of the log10 of the (zeranol + taleranol) concentrations versus log10 of the Fusarium spp. toxin concentrations. Comparison is made to a "normal" population derived from the analysis of more than 8,000 field urine samples from 4 EU Member States (including Northern Ireland). The result of the statistical analysis suggests that zeranol abuse has not occurred and that it has arisen from metabolism of dietary Fusarium spp. toxins.
9	Urine from three female cattle contained $\alpha$ -nortestosterone above the VMD 5 ppb action level (and a further 5 below the action Level). Records suggest that that all were from breeding young breeding animals and one has given birth since sampling. The profile of natural normines for the remaining two suggest they also were pregnant at the time of sampling. Follow up investigation of the male positive has been initiated.
10	Urine from one female OTM bovine contained $\alpha$ -nortestosterone above the VMD 5 ppb action level (and a further 6 below the Action Limit). Records suggest that that it was from a breeding cow and it has given birth since sampling.

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Urine from two female sheep contained  $\alpha$ -nortestosterone below the VMD action level. Urine from two male sheep contained  $\alpha$ -nortestosterone. Five further sheep (sex not given) contained  $\alpha$ -nortestosterone and one also contains  $\beta$ -nortestosterone. Follow up investigations initiated

## 2007 NI Meat inspection samples in detail

Matrix	Analyte	Number of samples analysed	Less than MRL/Action level	Concentration detected above the MRL/Action Level ( $\mu\text{g}/\text{kg}$ )	Note
Cattle retina SH	$\beta$ -agonists	146	146	-	
Cattle urine SH	Hormones (22)	8	8		1
Cattle urine SH (Male)	$\alpha$ -nortestosterone	130	87	<b>0.38, 0.39(2), 0.47, 0.53(3), 0.54, 0.59, 0.60, 0.62, 0.70, 0.71, 0.74, 0.78, 0.80, 0.88, 0.90, 1.00, 1.08, 1.09, 1.17, 1.36, 1.37, 1.41, 1.50, 1.55, 1.60, 1.86, 1.97, 2.01, 2.10, 2.37, 2.38, 2.42, 3.25, 3.26, 3.79, 3.97, 4.48, 4.55, 5.32, 5.37</b>	2
	$\beta$ -nortestosterone	130	127	<b>0.32, 0.36, 0.62</b>	2
Cattle liver SH	Nitroxylin	15	15	-	
	Avermectins	13	13	-	
	Benzimidazoles	7	7	-	
	NSAIDS	1	1	-	
Cattle plasma SH	Phenylbutazone	1	1	-	
Sheep liver SH	Avermectins	1	1		
Cattle muscle SH	AMs	1501	1496	N/A Qualitative test	
	Tetracyclines	4	1	<b>OTC 180, 245, 313</b>	3
	Quinolones	1	1	-	
Sheep muscle SH	AMs	3	3	N/A Qualitative test	
Pig muscle SH	AMs	133	130	N/A Qualitative test	
	Tetracyclines	3	3	-	

### Key:

SH	Slaughterhouse
OF	On farm
(n)	Number of samples with same concentration of analyte
<b>Bold</b>	Samples declared positive in excess of MRL or action level
AMs	Antimicrobials

### Notes

1	Samples are tested by a LC-MS/MS procedure which covers some 22 unauthorised
2	$\alpha$ -Nortestosterone was detected in the urine of 43 male bovines at meat plants. Three of these animals also contained $\beta$ -Nortestosterone. Forty two animals were casualties. The last did not have a veterinary certificate but a back injury was discovered at post mortem. All carcasses were excluded from the food chain.
3	Tetracyclines detected above MRL. Carcasses excluded from the food chain

## 2007 NI Bovine QA samples in detail

Matrix	Analyte	No of samples analysed	Less than MRL/Action Level	Concentration detected above the MRL/Action Level (µg/kg)	
Cattle retina SH	β-agonists	895	895	-	
Cattle urine SH	Ractopamine	198	198	-	
Cattle urine SH	Hormones	206			1
(SBS)	Oestradiol	206		<b>Male 4.40, 4.51, 16.60 Female 1098.0</b>	2
	Testosterone	206	189	<b>Male 3.20, 3.23, 5.26, 5.72, 8.20, 8.70, 9.10, 11.16, 12.50, 12.57, 14.43, 15.80, 15.88, 24.04</b>	3
	Zeranol Talaranol	206	203		4
	α-Nortestosterone	206	205	<b>Male 0.72</b>	5

### Key:

SH	Slaughterhouse
OF	On farm
NSS	National Surveillance Scheme sample
(n)	number of samples with same concentration of analyte
<b>Bold</b>	samples declared positive in excess of MRL or action level
CTC	Chlortetracycline
OTC	Oxytetracycline
PenG	Penicillin G (Benzyl-penicillin)
Enro	Enrofloxacin
SMT	Sulphamethazine
SDZ	Sulphadiazine

### Notes

1	Samples are tested by an LC-MS/MS procedure which covers some 22 unauthorised hormonal growth promoters. The results below indicate the specific compounds detected.
2	Oestradiol detected in the urine of 3 males. During the year, a tentative Upper Limit of Normality was established at 3.8 ppb in steer urine. Whilst concentrations above this level does not constitute proof of abuse it does suggest that oestradiol may have been administered. Follow-up samples were requested.
3	Testosterone detected in the urine of 16 males. A tentative Upper Limit of Normality has been established at 5.0 ppb in steer urine. Whilst concentrations above this level does not constitute proof of abuse, if the animals were castrated testosterone may have been administered. Follow-up samples were requested.

4	<p>Zeranol &amp;/or taleranol detected in three urine samples. The statistical model to determine whether or not zeranol abuse in cattle has occurred, developed at VSD, was applied to these results. It involves a linear regression analysis of the log<sub>10</sub> of the (zeranol + taleranol) concentrations versus log<sub>10</sub> of the Fusarium spp. toxin concentrations. Comparison is made to a "normal" population derived from the analysis of more than 8,000 field urine samples from 4 EU Member States (including Northern Ireland). The result of the statistical analysis suggests that zeranol abuse has not occurred and that they had arisen from metabolism of dietary Fusarium spp. toxins.</p>
5	<p><math>\alpha</math>-Nortestosterone was detected in the urine of one male bovine at meat plants. Follow up initiated. <math>\alpha</math>-Nortestosterone was also detected in the urine of one female below the VMD action level 5 ppb).</p>

## 2007 NI Pig Testing Phase I samples in detail

Matrix	Analyte	Number of samples analysed	Less than MRL/Action level	Concentration detected above the MRL/Action Level (µg/kg)	Note
Pig bile SH	Sulphonamides	4015	23	N/A Qualitative test	
Pig kidney SH	AMs	4021		N/A Qualitative test	
	Sulphonamides	23	14	<b>SDZ 135, 157, 174, 215, 236, 281, 1453, 1623, 2248</b>	1
	Tetracyclines	87	85	<b>OTC 955, 1273</b>	2
	Quinolones	3	3		

### Key:

SH	Slaughterhouse
(n)	Number of samples with same concentration of analyte
<b>Bold</b>	Samples declared positive in excess of MRL or action level
CTC	Chlortetracycline
SMT	Sulphamethazine
SDZ	Sulphadiazine

### Notes

1	Sulphadiazine confirmed >MRL (100 µg/kg) in nine kidneys. Producers placed on intensive sampling programme.
2	Chlortetracycline detected in two pig kidneys above the MRL. Producers placed on intensive sampling programme

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## 2007 NI Pig Testing Phase II samples in detail

Matrix	Analyte	Number of samples analysed	Less than MRL/Action level	Concentration detected above the MRL/Action Level ( $\mu\text{g}/\text{kg}$ )	Note
Pig bile SH	Sulphonamides	491	484	N/A Qualitative test	
Pig Muscle SH	AMs	491	460	N/A Qualitative test	
	Sulphonamides	7	7	-	
	Tetracyclines	31	31	-	

### Key:

SH	Slaughterhouse
(n)	Number of samples with same concentration of analyte
<b>Bold</b>	Samples declared positive in excess of MRL or action level
CTC	Chlortetracycline
SMT	Sulphamethazine
SDZ	Sulphadiazine

### Notes

## 2007 NI Follow-up samples in detail

Matrix	Analyte	Number of samples analysed	Less than MRL/Action level	Concentration detected above the MRL/Action Level (µg/kg)	Note
Cattle urine OF	α-Nortestosterone	221	221	-	1
	Testosterone	69	69	-	
	Progesterone	5	5	-	
	α-Oestradiol	6	5	15.0	
	α-Boldenone	1	1	-	
	β-Boldenone	1	1	-	
	Zeranol	5	5	-	
Cattle urine SH	α-Nortestosterone	14	14	-	
	Testosterone	9	9	-	
	Progesterone	7	7	-	
	α-Nestradiol	1	1	-	
Sheep urine OF (Male)	α-Nortestosterone	3	3	-	
Pig Kidney SH	Antimicrobials	20	20	-	
	Sulphonamides	20	20	-	
Pig Water OF	Sulphonamides	1	1	-	
Pig Meal OF	Sulphonamides	1	1	-	
Poultry feed OF	Nicarbazin	2	2	-	
Poultry Liver SH	Nicarbazin	3	3	-	

### Key:

SH	Slaughterhouse
OF	On farm
(n)	Number of samples with same concentration of analyte

### Notes

1	α-Oestradiol detected in the urine of a male bovine above the tentative upper limit of normality. Hair sample requested from this animal.
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## 2007 NI Other samples in detail

(Phase 1 plus surveys & extra testing on National Plan samples, etc)

Matrix	Analyte	No of samples analysed	Less than MRL/Action Level	Concentration detected above the MRL/Action Level (µg/kg)	
Poultry Liver SH	Nicarbazin	157	154	<b>203(2), 314, 1981</b>	1
Poultry Muscle SH	Nicarbazin	4	4	-	2
Poultry Feed OF	Nicarbazin	91	60		3

### Key:

SH	Slaughterhouse
OF	On farm
NSS	National Surveillance Scheme sample
(n)	number of samples with same concentration of analyte
<b>Bold</b>	samples declared positive in excess of MRL or action level

### Notes

1	Nicarbazin samples were collected as part of the joint FSA Survey into nicarbazin residues and its causes. Nicarbazin confirmed in the livers of 4 broilers greater than the JEFCA MRL (200 µg/kg).
2	Three of the corresponding muscles from the non-compliant livers have been analysed to date including the highest liver positive.
3	Of the results for the 91 last feed fed available at present 60 contained no nicarbazin and 31 had detectable concentrations. Of these only 3 contained more than 1 mg/kg nicarbazin.

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