

表1 ホウレン草における部位別ダイオキシン類濃度 (pgTEQ/g) *

異性体	可食部		非可食部	
	葉	莖	赤莖	ひげ根
2,3,7,8-TCDD	0.006	<0.001	<0.001	<0.001
1,2,3,7,8-PeCDD	0.027	0.010	0.015	0.770
1,2,3,4,7,8-HxCDD	0.001	<0.001	<0.001	0.024
1,2,3,6,7,8-HxCDD	0.002	<0.001	0.001	0.139
1,2,3,7,8,9-HxCDD	0.002	<0.001	0.001	0.057
1,2,3,4,6,7,8-HpCDD	0.002	0.001	0.003	0.106
OCDD	<0.001	<0.001	<0.001	0.012
Total PCDDs	0.040	0.011	0.021	1.108
2,3,7,8-TCDF	0.003	0.001	<0.001	0.003
1,2,3,7,8-PeCDF	0.003	0.001	0.001	0.017
2,3,4,7,8-PeCDF	0.014	0.004	0.003	0.069
1,2,3,4,7,8-HxCDF	0.003	<0.001	<0.001	0.046
1,2,3,6,7,8-HxCDF	0.002	<0.001	<0.001	0.024
1,2,3,7,8,9-HxCDF	<0.001	<0.001	<0.001	0.011
2,3,4,6,7,8-HxCDF	0.002	<0.001	0.002	0.106
1,2,3,4,6,7,8-HpCDF	0.001	<0.001	0.001	0.026
1,2,3,4,7,8,9-HpCDF	<0.001	<0.001	<0.001	0.002
OCDF	<0.001	<0.001	<0.001	<0.001
Total PCDFs	0.027	0.005	0.006	0.302
3,3',4,4'-TCB(#77)	<0.001	<0.001	<0.001	<0.001
3,4,4',5'-TCB(#81)	<0.001	<0.001	<0.001	<0.001
3,3',4,4',5'-PencB(#126)	<0.001	<0.001	<0.001	0.035
3,3',4,4',5,5'-HexCB(#169)	<0.001	<0.001	<0.001	<0.001
2,3,3',4,4'-PencB(#105)	<0.001	<0.001	<0.001	0.003
2,3,4,4',5'-PencB(#114)	<0.001	<0.001	<0.001	0.001
2,3',4,4',5'-PencB(#118)	<0.001	<0.001	<0.001	0.005
2,3,4,4',5'-PencB(#123)	<0.001	<0.001	<0.001	<0.001
2,3,3',4,4',5'-HexCB(#156)	<0.001	<0.001	<0.001	0.002
2,3,3',4,4',5'-HexCB(#157)	<0.001	<0.001	<0.001	0.001
2,3',4,4',5,5'-HexCB(#167)	<0.001	<0.001	<0.001	<0.001
2,3,3',4,4',5,5'-HpCB(#189)	<0.001	<0.001	<0.001	<0.001
Total Co-PCBs	0.001	<0.001	0.001	0.047
Total PCDDs+PCDFs+Co-PCBs	0.068	0.017	0.028	1.458

*測定値は4回試行の平均を示した。

表2 調理加工による小松菜のダイオキシン濃度の推移

A: 洗浄前後の比較		PCDDs+PCDFs			Co-PCBs			合計		
未洗浄	0.048, 0.053, 0.065, 0.052, 0.051	<0.001, <0.001, <0.001, <0.001, <0.001	0.048, 0.053, 0.065, 0.052, 0.051	<0.001, <0.001, <0.001, <0.001, <0.001	0.048, 0.053, 0.065, 0.052, 0.051					
Mean±S.D.	0.054 ± 0.006	<0.001	0.054 ± 0.006	<0.001	0.054 ± 0.006					
水洗後	0.027, 0.025, 0.027, 0.025, 0.023	<0.001, <0.001, <0.001, <0.001, <0.001	0.027, 0.025, 0.027, 0.025, 0.023	<0.001, <0.001, <0.001, <0.001, <0.001	0.027, 0.025, 0.027, 0.025, 0.023					
Mean±S.D.	0.025 ± 0.002	<0.001	0.025 ± 0.002	<0.001	0.025 ± 0.002					
残存率(%)	47.1	98.2		98.2	47.2					

B: 煮沸前後の比較		PCDDs+PCDFs			Co-PCBs			合計		
水洗後	0.027, 0.025, 0.027, 0.025, 0.023	<0.001, <0.001, <0.001, <0.001, <0.001	0.027, 0.025, 0.027, 0.025, 0.023	<0.001, <0.001, <0.001, <0.001, <0.001	0.027, 0.025, 0.027, 0.025, 0.023					
Mean±S.D.	0.025 ± 0.002	<0.001	0.025 ± 0.002	<0.001	0.025 ± 0.002					
煮沸後	0.016, 0.024, 0.023, 0.022, 0.022	<0.001, <0.001, <0.001, <0.001, <0.001	0.016, 0.024, 0.023, 0.022, 0.022	<0.001, <0.001, <0.001, <0.001, <0.001	0.016, 0.024, 0.023, 0.022, 0.023					
Mean±S.D.	0.021 ± 0.003	<0.001	0.021 ± 0.003	<0.001	0.021 ± 0.003					
残存率(%)	84.6	100		100	84.7					

表3 調理加工によるサバのダイオキシン濃度の推移

A 調理法: 焼く		PCDDs+PCDFs			Co-PCBs			合計		
調理前	0.517, 0.726, 0.661	0.965, 2.276, 1.582	1.481, 3.002, 2.243	0.517, 0.726, 0.661	0.965, 2.276, 1.582	1.481, 3.002, 2.243				
調理後	0.313, 0.549, 0.542	0.597, 1.652, 1.106	0.91, 2.201, 1.648	0.313, 0.549, 0.542	0.597, 1.652, 1.106	0.91, 2.201, 1.648				
残存率(%)	60.6, 75.7, 82	61.9, 72.6, 69.9	61.4, 73.3, 73.5	60.6, 75.7, 82	61.9, 72.6, 69.9	61.4, 73.3, 73.5				
Mean±S.D.	72.7 ± 11	68.1 ± 5.6	69.4 ± 6.9	72.7 ± 11	68.1 ± 5.6	69.4 ± 6.9				

B 調理法: 煮る		PCDDs+PCDFs			Co-PCBs			合計		
調理前	1.125, 0.493, 1.912	2.567, 1.491, 3.649	3.692, 1.984, 5.561	1.125, 0.493, 1.912	2.567, 1.491, 3.649	3.692, 1.984, 5.561				
調理後	1.046, 0.448, 1.594	2.11, 1.282, 3.082	3.156, 1.73, 4.676	1.046, 0.448, 1.594	2.11, 1.282, 3.082	3.156, 1.73, 4.676				
残存率(%)	93.0, 91.0, 83.4	82.2, 86.0, 84.5	85.5, 87.2, 84.1	93.0, 91.0, 83.4	82.2, 86.0, 84.5	85.5, 87.2, 84.1				
Mean±S.D.	89.1 ± 5.1	84.2 ± 1.9	85.6 ± 1.6	89.1 ± 5.1	84.2 ± 1.9	85.6 ± 1.6				

C 調理法: つみれ		PCDDs+PCDFs			Co-PCBs			合計		
調理前	0.648, 0.434, 0.662	1.232, 0.675, 2.093	1.879, 1.109, 2.755	0.648, 0.434, 0.662	1.232, 0.675, 2.093	1.879, 1.109, 2.755				
調理後	0.568, 0.258, 0.544	1.022, 0.582, 1.574	1.591, 0.841, 2.118	0.568, 0.258, 0.544	1.022, 0.582, 1.574	1.591, 0.841, 2.118				
残存率(%)	87.7, 59.6, 82.2	83.0, 86.3, 75.2	84.6, 75.8, 76.9	87.7, 59.6, 82.2	83.0, 86.3, 75.2	84.6, 75.8, 76.9				
Mean±S.D.	76.5 ± 14.9	81.5 ± 5.7	79.1 ± 4.8	76.5 ± 14.9	81.5 ± 5.7	79.1 ± 4.8				

表4 調理加工による牛肉のダイオキシン濃度の推移

A 調理法: 煮る		PCDDs+PCDFs			Co-PCBs			合計		
調理前	0.038, 0.049, 0.236	0.029, 0.037, 0.078	0.067, 0.087, 0.315	0.038, 0.049, 0.236	0.029, 0.037, 0.078	0.067, 0.087, 0.315				
調理後	0.017, 0.022, 0.165	0.02, 0.028, 0.052	0.037, 0.051, 0.217	0.017, 0.022, 0.165	0.02, 0.028, 0.052	0.037, 0.051, 0.217				
残存率(%)	44.8, 45.4, 69.7	69.4, 76.1, 66.5	55.6, 58.5, 68.9	44.8, 45.4, 69.7	69.4, 76.1, 66.5	55.6, 58.5, 68.9				
Mean±S.D.	53.3 ± 14.2	70.7 ± 4.9	61.0 ± 7.0	53.3 ± 14.2	70.7 ± 4.9	61.0 ± 7.0				

B 調理法: 焼く		PCDDs+PCDFs			Co-PCBs			合計		
調理前	0.038, 0.049, 0.236	0.029, 0.037, 0.078	0.067, 0.087, 0.315	0.038, 0.049, 0.236	0.029, 0.037, 0.078	0.067, 0.087, 0.315				
調理後	0.017, 0.033, 0.162	0.02, 0.027, 0.063	0.036, 0.06, 0.225	0.017, 0.033, 0.162	0.02, 0.027, 0.063	0.036, 0.06, 0.225				
残存率(%)	43.4, 66.0, 68.6	66.6, 72.9, 80.3	53.5, 69.0, 71.5	43.4, 66.0, 68.6	66.6, 72.9, 80.3	53.5, 69.0, 71.5				
Mean±S.D.	59.3 ± 13.9	73.3 ± 6.9	64.7 ± 9.8	59.3 ± 13.9	73.3 ± 6.9	64.7 ± 9.8				

C 調理法: ハンバーグ		PCDDs+PCDFs			Co-PCBs			合計		
調理前	0.038, 0.049, 0.236	0.029, 0.037, 0.078	0.067, 0.087, 0.315	0.038, 0.049, 0.236	0.029, 0.037, 0.078	0.067, 0.087, 0.315				
調理後	0.019, 0.018, 0.162	0.022, 0.032, 0.051	0.041, 0.05, 0.213	0.019, 0.018, 0.162	0.022, 0.032, 0.051	0.041, 0.05, 0.213				
残存率(%)	50.7, 37.1, 68.6	73.7, 85.3, 65.1	60.8, 57.8, 67.7	50.7, 37.1, 68.6	73.7, 85.3, 65.1	60.8, 57.8, 67.7				
Mean±S.D.	52.1 ± 15.8	74.7 ± 10.1	62.1 ± 5.1	52.1 ± 15.8	74.7 ± 10.1	62.1 ± 5.1				