

**Ontario Animal
Research and Services Committee
(O.A.R.S.C)**

**2004 Annual Report
to
Ontario Agricultural Services
Coordinating Committee**

November 2004

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Ontario Animal Research and Services Committee (OARSC) Report 2004

Introduction

The focus of this year's Ontario Animal Research and Services Committee (OARSC) subcommittee meetings was to develop strategic research recommendations for the review of the Animal Research program taking place in 2006. This review is linked with the establishment of the 4-year plan of research for the Animal Research Program under the OMAF/University of Guelph Agreement.

OARSC met for its annual meeting on September 29, 2004. Prior to this meeting the 12 subcommittees of OARSC met several times throughout the year to review the state of their respective industries and to develop strategic research recommendations. These recommendations addressed the question "where do you see your industry 5 years from now". Subcommittee chairs for aquaculture, beef, dairy, deer & elk, equine, fur, sheep, goats, pork and poultry each provided:

- ◆ A description of the current issues facing their industries that potentially affect research priorities
- ◆ An update on the current status of research; and
- ◆ New or updated research recommendations.

The list of recommendations were reviewed and consolidated into two tables that listed the recommendations by species priority (table 1). This was further evaluated in order to generate a priority listing of common themes (table 2). This is important summary information for consideration under the OMAF/University of Guelph Agreement the Animal Research Program will be restructured into themes rather than livestock species with the establishment of the next 4-year plan of research.

Current Issues

The discovery of Bovine Spongiform Encephalopathy (BSE) in Alberta on May 20, 2003 continues to be the largest and most far-reaching issue affecting the animal industry. All ruminants were affected by the closure of the US and other international borders to trade. Thus, there is increased sensitivity in many of the subcommittees surrounding the issue of animal health, and Transmissible Spongiform Encephalopathies (TSE), in particular, the potential impact on the perception of food safety, price, and related production and marketing impacts. The most common issue identified by subcommittees related to animal health and disease prevention as reflected by a difficult and worsening position with regard to an accumulating inventory of surplus cattle (over 30 months of age), disposal of deadstock and challenges faced by restrictions on processors and vendors relative to food security.

Most of the animal industries, outside of those already directly impacted by BSE and those stable industries regulated by supply-management, continue to face challenging financial

circumstances. Pressures to meet societal obligations (mitigation of impact on environment, maintaining confidence in product, animal welfare, etc.) continue to challenge competitiveness, and in some cases continuation of production.

Ontario Animal Research and Services Committee Recommendation

The Ontario Animal Research Services Committee is recommending that the following themes be considered in the establishment of a revised framework for research (as suggested by the ARIO paper, “Strategic Options for Agri-Food R&D in Ontario”, Argyle Rowland Communications). These themes should serve as a platform for the development of more specific “value-chains” and major projects. Listed in priority, these are:

- 1) Improving animal health
- 2) Improving consumer confidence in animal products
- 3) Increased production or efficiency
- 4) Product innovation
- 5) Reducing impacts on the environment (locally and globally)
- 6) Development of non-food bio-products
- 7) Improve the welfare of farmed animals
- 8) Improved methods for business planning and management

These recommendations noted below are supported by detailed summaries in each of the subcommittee reports that are appended to this Report. These recommendations are listed in order of priority.

1 Improving animal health:

Animal Health, its impact on human health and producer profitability, is the highest priority for the animal industry. Faster, cheaper and easier to use new diagnostics that can quickly determine the incidence of animal disease and have an impact on food safety, consumer confidence, trade and industry profitability will significantly help the industry.

Infectious disease research, including Aetiology and Pathogenesis, will focus on understanding animal disease with the hope of preventing or curing animal disease. Research is also needed to control and contain animal disease to reduce input costs, increase yield, improve market access and maintain public confidence.

Biosecurity protocols are needed to contain and then eliminate infectious diseases as a defensive strategy against infectious disease outbreaks such as the Avian Influenza outbreak that happened in British Columbia recently.

2 Maintaining/improving confidence and satisfaction in animal products:

Industry food safety and quality research concerns are an effort to maintain consumer confidence by reducing food borne pathogens and finding acceptable intervention strategies and reduce drug residues.

Product quality priorities include improved processing technologies to increase shelf life and produce new products

3 Improving production performance or efficiency:

Industry research interests in increased performance, though a focus on nutrition, breeding and genetics, reproduction, neonatal survival and longevity are an attempt to improve production efficiency, reduce costs and improve profitability for the industry.

4 Product innovation:

Product innovation including enriched nutritional foods, foods with health benefits (nutraceuticals), novel food products and innovations that address niche markets (organic, etc.), are all strategies being identified as priorities for research by the animal industry to find new markets for their commodities.

5 Reducing/mitigating environmental impact:

Environmental issues as a societal concern have shown no sign of abatement and research on nutrient management, protection of water, soil, and air (including odours) and disposal of on-farm mortalities continue to be industry priorities.

6 Development of non-food bio-products:

Recent regulatory changes and disease identification has reduced the value of waste byproducts and in some cases increased the cost of disposal. Research priorities focus around risk materials from slaughterhouses, processing “wastes”, ruminant by-products and manure.

7 Improving the welfare of farmed animals:

Development of science-based measures of animal well-being with design of appropriate animal environments are research priorities that help the industry enhance consumer confidence and acceptance of animal products and also potentially increase production productivity.

8 Development of business principles/economic assessments:

Management models for business and industry including benchmarks, Business planning for profitability and economic impact are priorities that help the industry evaluate their competitiveness.

Dr John Walton

Co-chair

Ontario Animal Research Coordinating Committee

November 2004

Rick Norkooli

Co-chair

Ontario Animal Research Coordinating Committee

November 2004

Table 1 – Priorities by Commodity

	Dairy	Beef	Pork	Poultry	Sheep	Goat	Equine	Aquaculture	Deer & Elk	Fur-Bearing
Priority Order										
1	Marketing and New Products	Product Quality	Growth Performance	Food Safety & Quality	TSE Incidence & Diagnostics	Nutrition	Wasteage + Poor Performance	Environmental Impact	CWD Detection & Certification	Foot Pad Necrosis
2	Environment	Product Safety	Reproductive Efficiency	New Products (nutraceuticals)	Reducing Lamb Losses	Health	Diagnostics	Nutrition & Bioenergetics	On-Farm Tracking	Pre-Weaning Diarrhea
3	Animal Health	Production Efficiency	Well-being v/v Production	Health and Diagnostics	Alternative Parasite Control	Health/Product Confidence	Infections Disease	Health Management & Disease	Embryo Reproductive Technologies	Aleution Disease
4	Animal Welfare/behaviour	Animal Health	Environment	Alternatives to antibiotics	Food Safety (microbial)	Food Safety	Reproductive Efficiency	Genetics & Breeding	Antler Harvesting	Environment
5	Business Finance	Economics	New Products - Bioproducts	Enhanced Poultry Welfare	Deadstock/ Bioproducts	Traceability	Nutrition for Performance + Growth	Welfare of Farmed Fish	Nutritional attributes of venison and velvet antler	.
6	Reproduction	Market Development	Food Safety / Public Health	Environment related to poultry and worker health and safety	Carcass Yield & Nutritional Value	Human Health	Emerging Issues	Food Products & Processing Technology	Development of withdrawal times for drugs used in farmed cervids	.
7	Societal Issues	Product Innovation	.	Bio-products	Health	Product Quality	Business/ Finance	Economic Analyses & Industry Profiling	Efficient Feeding Systems	.
8	Product Testing	Livestock Mortalities & Processing By-Products	.	Economic Impact	Maternal Genetic Selection	.	.	.	Slaughter Facility Feasibility Study	.
9	.	Environmental Issues Management	.	.	Economic Impact/ Marketing	.	.	.	.	.

Table 2 - Animal Program Priorities

		Aqua	Dairy	Beef	Pork	Poultry	Sheep	Goat	Equine	Deer & Elk	Fur
1	Animal Health New Diagnostics Infectious Disease Aetiology Pathogenesis Control Prevention Traceability Biosecurity	3	3	2.2 4.2 4.1	6.1 1.1	3.1 1.2 3.3 3.2	1.1 7	2	2 3	1.1 1.2	1,2, 3
2	Food Safety Food Quality Microbial Residue Processing technology Consumer Appeal Traceability	6	8	1 2.1	6.2 6.3	1.1 1.3,4	4,6 5	2 4		6 4 2	
3	Production Performance Performance Nutrition Breeding/Genetics Reproduction Neonatal survival Longevity	2 4	6	3.1	1.2 5.1 2		6,8 3 2	1	1 5 4	1.2 7 3	
4	Production Innovation Nutraceuticals Novel food products Niche markets		1	7 6.1	5.2 5.3	2	6 5.2	6,7		5 1.3	
5	Environmental Impact Nutrient management Protection of soil, water, air On-farm mortality disposal	1	2.1 2.2 2.3	6	4.2 4.1	6.2		3.1			
6	Non-food Bioproducts Risk Materials from Slaughterhouse Processing “wastes” Ruminant by-products Manure		2	8 3.2	5	6.1,7	5.1	3.2			4
7	Animal Welfare Science based measures of well-being	5	4		3	5					
8	Business Principles & Economic Assessment Value Chains	7	5	5 6.1		8	9			8	

Table 3 - Average price to the Producer, Ontario

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Slaughter steers, \$/cwt	94.24	80.64	75.88	80.93	81.08	90.92	101.16	109.22	101.55	83.06
Slaughter lambs, \$/cwt	116.60	130.62	138.22	142.85	133.61	127.43	130.15	129.78	113.64	120.07
Hogs, index 100, \$/100 kg	145.00	151.00	189.00	187.00	127.00	125.00	169.00	182.00	145.00	140.00
Chickens, \$/kg	1.44	1.41	1.61	1.6	1.57	1.44	1.45	1.58	1.50	1.58
Turkeys, \$/kg	1.66	1.67	1.85	1.81	1.78	1.71	1.72	1.75	1.76	1.75
Eggs, \$/doz	1.12	1.17	1.31	1.24	1.20	1.17	1.21	1.25	1.24	1.23
Milk, \$/hl	52.05	51.82	51.8	51.47	56.42	51.74	53.90	54.19	52.06	61.36

Source: Statistics Canada

Table 4 - Total Farm Cash Receipts by Province, (\$'000)

	1999	2000	2001	2002	2003
Newfoundland	74,822	74,786	78,955	80,459	81,798
Prince Edward Island	349,570	323,096	336,813	364,011	354,321
Nova Scotia	393,053	414,292	420,674	407,003	417,097
New Brunswick	377,750	369,290	412,243	424,278	396,921
Quebec	5,100,287	5,422,498	5,752,699	5,511,715	5,981,190
Ontario	7,186,221	7,872,186	8,535,258	8,492,486	8,343,708
Manitoba	2,908,005	3,150,535	3,697,240	3,855,286	3,545,890
Saskatchewan	5,540,474	5,722,872	6,496,432	6,484,796	5,690,064
Alberta	6,520,942	7,562,537	8,376,243	8,383,513	6,999,261
British Columbia	1,905,986	2,048,439	2,222,565	2,213,602	2,312,042
Canada	30,357,110	32,960,524	36,329,119	36,217,136	34,122,273

Source: Statistics Canada, Catalogue No.21-603

Table 5 - Farm Cash Receipts from Farming Operations, Ontario, 1996-2003 (\$'000)

Item	1996	1997	1998	1999	2000	2001	2002	2003
Wheat	159,802	70,468	120,266	106,517	106,990	125,172	217,599	301,034
Oats	5,371	5,412	4,900	4,244	3,520	5,618	7,434	7,102
Barley	14,463	11,691	10,245	7,899	7,571	10,272	11,336	10,603
Rye	5,845	5,410	5,025	4,570	3,650	4,585	4,783	6,830
Canola	12,314	17,507	17,868	8,896	10,066	8,376	14,924	12,420
Soybeans	558,694	726,959	688,921	525,940	586,476	448,830	475,626	560,322
Corn	509,535	435,216	385,059	458,786	408,393	388,167	478,728	428,128
Potatoes	48,956	57,625	54,774	62,555	65,590	71,937	87,292	86,226
Greenhouse vegetables	101,129	122,163	217,735	248,657	296,369	338,408	327,396	320,083
Other vegetables	342,667	344,632	362,175	359,492	367,595	397,293	406,178	376,547
Apples	80,352	90,951	88,655	96,500	98,541	97,359	69,020	50,126
Other tree fruits	36,355	41,686	46,487	50,438	45,836	47,978	47,673	52,347
Strawberries	14,073	17,351	17,431	17,360	19,565	19,931	18,975	17,925
Other berries, grapes	39,458	46,510	51,744	59,828	53,768	60,458	59,045	37,290
Floriculture and nursery	469,508	505,264	577,397	664,640	811,333	842,310	925,270	949,925
Tobacco	323,571	330,999	341,177	338,960	329,303	226,088	257,294	211,603
Ginseng	51,612	39,897	36,851	22,921	24,856	37,551	45,630	44,696
Dry beans	36,057	28,640	31,399	41,942	29,631	22,383	54,968	44,543
Forage and grass seed	1,620	1,824	1,739	1,396	1,384	1,607	1,876	2,072
Hay and clover	25,407	30,827	27,478	25,315	26,721	28,970	30,510	31,949
Maple products	14,807	10,108	8,125	10,444	17,471	10,599	10,888	10,467
Forest products	19,892	20,066	20,240	20,414	20,586	18,612	18,406	17,800
Christmas trees	..	11,700	6,078	6,078	6,079	4,744	6,069	5,936
Miscellaneous crops	10,340	10,703	11,862	14,460	14,704	18,660	20,747	20,797
Total crops	2,881,828	2,983,609	3,133,631	3,158,252	3,355,998	3,235,908	3,597,667	3,606,771

Table 5 - Farm Cash Receipts from Farming Operations, Ontario, 1996-2003 (\$'000)

Item	1996	1997	1998	1999	2000	2001	2002	2003
Cattle	781,659	781,858	850,897	907,070	972,774	1,151,893	1,075,798	797,453
Calves	71,115	87,462	83,568	92,983	105,142	103,240	95,968	58,473
Hogs	744,165	782,718	581,342	591,152	823,233	945,612	805,221	863,100
Sheep	1,866	2,337	2,590	2,391	3,069	2,821	2,282	2,889
Lambs	24,067	22,512	21,689	22,361	25,306	30,659	31,068	34,595
Dairy products	1,185,680	1,234,543	1,277,740	1,280,810	1,319,954	1,369,058	1,357,337	1,470,486
Hens and chickens	406,237	417,679	444,099	424,503	440,037	495,533	472,469	496,942
Turkeys	121,256	118,171	111,024	101,977	115,197	115,904	118,343	117,893
Hatcheries	..	11,499	14,200	10,567	10,476	10,855	10,887	11,464
Eggs	236,774	189,487	7,594	184,441	196,968	210,708	212,377	207,779
Wool	374	363	264	174	231	186	237	260
Honey	8,182	9,284	8,905	8,734	8,444	9,057	14,487	20,484
Furs	18,983	13,597	13,068	8,589	10,676	10,698	11,399	11,830
Miscellaneous livestock	42,324	41,924	39,739	39,045	41,898	45,218	42,709	41,510
Total livestock and products (Note A)	3,659,873	3,732,311	3,645,816	3,695,030	4,093,910	4,522,175	4,271,411	4,151,500
NISA	30,295	34,318	76,002	109,107	109,730	122,008	169,790	190,663
GRIP (revenue protection)	563	-	-	-	-	-	-	-
Crop insurance	58,096	47,154	51,329	28,644	71,749	218,699	218,983	118,763
Provincial stabilization	-	-	-	-	-	-	-	-
Dairy subsidy	53,742	53,284	47,364	36,487	25,934	14,704	3,190	-
Market Revenue Program	-	-	15,071	74,844	127,244	121,853	100,977	12,712
Ontario Whole Farm Relief Program	-	-	-	77,885	86,795	52,900	63	-
Ontario Farm Income Disaster Program	-	-	-	-	-	56,336	57,557	40,247
BSE Recovery Program	-	-	-	-	-	-	-	87,353
Ontario BSE Recovery	-	-	-	-	-	-	-	43,274
Other payments	1,136	1,831	11,275	5,972	826	190,675	72,848	92,425
Total payments	143,832	136,587	201,041	332,939	422,278	777,175	623,408	585,437
Total receipts	6,685,533	6,852,507	6,980,488	7,186,221	7,872,186	8,535,258	8,492,486	8,343,708

Table 5 - Farm Cash Receipts from Farming Operations, Ontario, 1996-2003 (\$'000)

Income of Farm Operators from Farming Operations, 1996-2003 (\$'000)

Item	1996	1997	1998	1999	2000	2001	2002	2003
+ Total farm cash receipts	6,685,533	6,852,507	7,014,882	7,186,221	7,872,186	8,535,258	8,492,486	8,343,708
- Operating expenses after rebates	5,554,619	5,707,853	5,752,547	5,999,107	6,402,128	6,965,602	7,233,228	7,340,178
= Net cash income	1,130,914	1,144,654	1,262,335	1,187,114	1,470,058	1,569,656	1,259,258	1,003,530
+ Income-in-kind	52,025	51,550	45,943	43,493	45,334	41,952	40,445	37,582
- Depreciation	868,711	926,194	914,298	986,871	1,032,277	1,054,432	1,120,796	1,111,936
= Realized net income	314,228	270,010	393,980	243,736	483,115	557,176	178,907	(70,824)
+ Value of inventory change	136,067	7,099	22,878	(12,303)	(180,981)	(106,054)	150,482	147,240
= Total net income	450,295	277,109	416,858	231,433	302,134	451,122	329,389	76,416

Source: Statistics Canada, Catalogue No. 21-603

A Includes receipts from the sale of horses and embryos, which are not explicitly listed in the table.

Source: Statistics Canada, Catalogue No. 21

Table 6 – Ontario and Canada Agri-Food Trade January – December 2001 / 2002 / 2003

Commodity group	ex01	ex01	im01	im01	ex02	ex02	im02	im02	ex03	ex03	im03	im03
	Ont	Can	Ont	Can	Ont	Can	Ont	Can	Ont	Can	Ont	Can
Live animals	578,530	2,348,622	79,798	322,108	549,608	2,447,927	87,485	165,843	389,706	1,256,372	55,351	110,218
Red meats	777,861	4,559,019	746,506	1,348,112	793,743	4,491,408	805,536	1,391,528	799,618	3,884,039	753,741	1,334,495
Fish and products	124,853	4,220,568	596,313	2,145,402	126,038	4,726,959	645,726	2,147,899	104,615	4,516,575	622,034	2,016,275
Poultry and eggs	141,885	272,252	408,147	533,600	153,683	317,726	412,815	547,406	153,212	312,200	371,729	516,510
Dairy products	164,007	432,676	333,952	523,984	139,961	359,029	297,246	503,678	130,217	326,973	283,789	504,953
Other animal products	331,473	720,050	256,010	366,571	352,240	752,575	272,601	390,634	355,179	713,465	245,091	357,389
Grains	54,935	4,543,061	333,522	610,575	83,047	3,514,641	298,781	838,125	180,443	3,244,349	332,362	717,552
Grain products	1,159,517	1,935,428	926,241	1,413,072	1,401,122	2,248,579	994,646	1,518,122	1,496,645	2,302,307	969,605	1,494,739
Oilseeds	136,368	1,795,935	303,441	419,770	113,076	1,569,028	315,800	461,124	162,808	2,000,235	294,816	452,614
Oilseed products	191,562	837,703	326,111	741,991	168,345	798,565	391,904	838,191	185,436	893,094	415,534	888,335
Animal feeds	347,480	884,282	453,685	701,815	367,991	948,007	453,588	728,604	290,236	778,799	423,666	663,170
Fruit and nuts	87,085	437,269	1,654,866	3,050,448	103,902	448,821	1,800,469	3,309,822	101,319	475,890	1,795,593	3,290,312
Vegetables	650,299	2,761,062	1,301,059	2,288,220	794,329	2,662,246	1,471,236	2,593,839	848,090	2,827,791	1,357,536	2,434,126
Seeds for sowing	20,729	196,777	170,007	238,707	22,090	217,393	160,397	223,545	22,778	212,639	138,780	208,512
Vegetable fibres	6,445	34,238	98,291	177,122	6,961	23,244	75,998	143,560	2,540	21,383	114,737	169,227
Floriculture and nursery products	306,708	800,627	197,894	349,875	317,438	798,766	197,893	359,700	293,811	731,295	184,868	349,114
Tropical products (excl. fruit)	474,945	675,751	769,759	1,358,315	501,306	714,496	814,859	1,495,808	476,817	722,677	843,606	1,601,642
Sugar and confectionery	599,778	1,002,316	758,107	1,223,741	651,141	1,132,818	780,801	1,177,318	747,051	1,375,053	750,763	1,209,934
Other edible preparations	530,319	896,396	915,390	1,296,744	584,888	1,044,509	1,160,776	1,613,628	547,203	1,011,510	1,118,370	1,581,116
Beverages	1,063,857	1,531,907	901,722	2,007,746	981,532	1,409,749	928,879	2,083,696	915,273	1,310,461	1,095,732	2,410,785
Tobacco and products	126,862	178,451	45,563	84,665	132,859	191,173	61,271	108,792	119,035	173,179	61,099	114,724
Other agri-food products	47,020	83,512	87,508	156,851	60,645	97,466	97,187	165,490	68,373	94,262	92,539	169,621
Total	7,922,517	31,147,904	11,663,891	21,359,434	8,405,945	30,915,126	12,525,898	22,806,351	8,390,406	29,184,547	12,321,339	22,595,364

Source: Statistics Canada, International Trade Division.

**Table 7 – Number of Livestock Slaughtered in Commercial
Canada and the Provinces, 2000 – 2003**

	Cattle & Calves				Hogs				Sheep & Lambs			
Province	2000	2001	2002	2003	2000	2001	2002	2003	2000	2001	2002	2003
					- '000 head							
Nfld	2.0	2.0	2.3	2.2	5.8	4.8	4.4	4.1	3.0	3.7	4.3	4.6
PEI	28.0	26.8	24.4	21.5	195.0	209.0	218.8	215.9	0.6	0.4	0.4	0.4
NS	30.1	27.8	23.9	22.9	221.3	224.7	225.8	205.6	12.3	12.1	12.6	13.2
NB	20.6	19.7	18.0	17.3	202.9	228.6	208.2	182.3	2.5	2.9	3.0	2.9
Quebec	458.1	474.3	475.2	464.4	6,828.7	7,064.0	7,350.3	7,503.2	123.3	146.1	143.2	133.4
Ontario	707.0	645.5	641.4	673.3	4,821.7	5,015.5	5,352.3	5,377.8	265.4	284.1	309.4	333.1
Manitoba	39.4	48.2	44.1	39.3	2,790.7	3,156.1	3,554.0	3,655.8	18.4	23.5	22.7	25.8
Saskatchewan	292.1	252.9	272.5	226.6	1,524.0	1,651.1	1,934.4	1,927.4	23.2	25.1	25.1	28.0
Alberta	2,210.6	2,257.4	2,281.7	2,021.1	2,809.2	2,891.7	3,013.1	3,101.7	80.9	92.5	97.2	108.1
British Columbia	48.2	50.0	53.2	48.5	285.1	258.3	267.8	265.1	82.2	83.7	77.1	81.7
Canada	3,836.1	3,804.6	3,836.7	3,537.1	19,684.4	20,703.8	22,129.1	22,438.9	611.8	674.1	695.0	731.2

a. Includes federally and provincially inspected slaughtering as well as farm kill.

Source: Statistics Canada, Catalogue No.23-603

Table 8 – The Size of the Ontario Livestock and Poultry Industry

Industry	Ontario number of head				% change			Numbers in Canada				Current	Current %	# 1 Prov
	July 1,2001	July 1,2002	July 1,2003	July 1,2004	01/02	03/02	04/03	2002	2003	2004	Rank	of Canada	in 2000	
	000 head				%			000 head				%		
Bulls(>1 yr.)	25.0	25.0	26.0	27.0	0.0	4.0	3.8	259.5	273.5	286.2	4	9.4	Alberta	
Dairy cows	365.0	367.0	360.0	372.0	0.5	-1.9	3.3	1,072.4	1,055.1	1,081.1	2	34.4	Quebec	
Dairy heifers(>1 yr.)	197.0	199.5	206.0	210.0	1.3	3.3	1.9	512.9	509.2	528.7	1	39.7	Ontario	
Beef cows	378.0	373.0	394.0	410.0	-1.3	5.6	4.1	4,821.8	4,916.1	4,632.0	4	8.9	Alberta	
Beef Heifers for breeding(>1 yr.)	82.0	74.5	82.0	80.0	-9.1	10.1	-2.4	828.0	896.8	822.2	4	9.7	Alberta	
Beef heifers for slaughter(>1 yr.)	162.0	167.0	177.0	190.0	3.1	6.0	7.3	1,116.8	1,126.5	1,274.6	2	14.9	Alberta	
Steers(>1 yr.)	315.0	339.0	357.0	380.6	7.6	5.3	6.6	1,606.6	1,618.2	1,732.4	2	22.0	Alberta	
Calves(<1 yr.)	606.0	595.0	628.0	638.7	-1.8	5.5	1.7	5,217.7	5,332.8	5,695.0	3	11.2	Alberta	
Total Cattle & Claves	2,130.0	2,140.0	2,230.0	2,308.3	0.5	4.2	3.5	15,435.7	15,728.2	16,760.0	3	13.8	Alberta	
Sows & Bred Gilts	351.0	391.7	415.1	431.7	11.6	6.0	4.0	1,505.0	1,558.9	1,592.9	1	27.1	Ontario	
Boars, 6 months & over	13.2	12.7	12.0	11.0	-3.8	-5.5	-8.3	43.4	40.0	37.7	1	29.2	Ontario	
Other Pigs under 20kg	1,048.2	1046.6	1194.3	1172.2	-0.2	14.1	-1.9	4,268.3	4,605.7	4,657.8	2	25.2	Quebec	
Other Pigs, 20-60 kg	1,099.7	1168.5	1032.7	1079.1	6.3	-11.6	4.5	4,630.3	4,289.1	4,356.5	2	24.8	Quebec	
Other Pigs, over 60 kg	964.1	1073.6	965.9	996	11.4	-10.0	3.1	4,221.5	4,149.9	4,193.1	2	23.8	Quebec	
Total Pigs	3,476.2	3,693.1	3,620.0	3,690.0	6.2	-2.0	1.9	14,668.5	14,643.6	14,838.0	2	24.9	Quebec	
Sheep(> 1yr.)	188.7	183.2	194.2	187.8	-2.9	6.0	-3.3	667.6	671.2	631.0	1	29.8	Ontario	
Lambs	151.3	151.8	158.8	152.2	0.3	4.6	-4.2	584.9	577.8	606.9	1	25.1	Ontario	
Total sheep & lambs	340.0	335.0	353.0	340.0	-1.5	5.4	-3.7	1252.5	1249.0	1237.9	1	27.5	Ontario	
Layers	9,229.0	9,501.0	9,323.0	9,682.0	2.9	-1.9	3.9	26,026.0	25,558.0	24,347.0	1	39.8	Ontario	
Broilers	22,771.0	22,939.0	22,093.0	22,083.0	0.7	-3.7	0.0	73,206.0	69,225.0	70,136.0	1	31.5	Ontario	
Turkeys	2,900.0	2,927.0	2,763.0	2,778.0	0.9	-5.6	0.5	7,206.0	7,059.0	6,672.0	1	41.6	Ontario	
Source: Statistics Canada														

Table 9 – Per Capita Consumption of Selected Foods, Canada 1993 - 2003

Red Meats, Poultry Meat and Eggs												
Type	Units	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Beef:												
- Carcass weight basis	kg	31.1	31.7	31.7	31.4	31.4	31.8	32.5	32.0	30.7	30.5	32.0
- Retail weight basis	kg	22.7	23.1	23.2	22.9	22.9	23.3	23.7	23.4	22.4	22.2	23.4
Veal ^a	kg	1.4	1.3	1.4	1.3	1.4	1.3	1.3	1.3	1.3	1.2	1.3
Mutton and lamb ^a	kg	0.9	0.8	0.8	0.8	0.7	0.8	0.8	0.9	1.0	1.0	1.1
Pork:												
- Carcass weight basis	kg	27.6	28.4	27.8	25.9	25.4	28.6	30.1	28.6	28.9	27.8	25.2
- Retail weight basis	kg	21.0	21.6	21.1	19.7	19.3	21.7	22.9	21.8	22.1	21.2	19.1
Offal	kg	1.1	1.5	1.4	1.3	1.2	1.4	1.7	1.0	0.9	1.0	1.4
Total red meats ^a	kg	62.0	63.7	63.0	60.7	60.0	63.9	66.4	63.8	62.8	61.6	60.9
Stewing hen and chicken	kg	24.8	26.4	26.2	26.6	27.5	28.2	29.6	30.9	32.2	32.5	32.2
Turkey	kg	4.4	4.4	4.3	4.1	4.2	4.3	4.2	4.3	4.2	4.3	4.2
Total poultry meats ^b	kg	29.1	30.8	30.5	30.7	31.7	32.5	33.8	35.2	36.5	36.7	36.4
Eggs	dozens	14.5	14.5	14.4	15.0	15.1	15.2	15.3	15.7	15.9	15.4	15.6

a Carcass weight basis.

b Eviscerated weight. Excludes goose and duck meat.

Sources: Statistics Canada, Catalogue No. 32-229, and 32-230.

Dairy Products and Margarine

Type	Units	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Cottage cheese	kg	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.8
Creamery butter	kg	2.9	2.9	2.8	2.9	2.6	2.9	2.8	2.7	2.8	2.8	2.9
Skim milk powder	kg	1.1	1.1	0.9	1.3	1.0	1.3	1.5	1.1	1.5	1.5	1.5
Whey powder	kg	1.0	1.0	0.9	1.1	0.8	0.7	0.4	0.9	1.0	0.6	0.4
Evaporated milk	L	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Cheddar cheese as such ^a	kg	3.0	3.2	3.2	3.1	3.2	3.2	3.3	3.2	3.1	3.1	3.2
Process cheese	kg	2.7	2.8	2.7	2.6	2.4	2.2	2.4	2.4	2.5	2.3	2.2
Other cheese as such ^{ab}	kg	5.5	5.6	5.6	5.7	6.5	6.3	6.2	6.3	6.3	6.5	6.5
Total Cheese	kg	11.2	11.5	11.6	11.3	12.1	11.7	11.9	11.8	11.9	11.8	11.9
Yogurt	L	3.0	3.1	3.0	3.2	3.2	3.5	4.0	4.6	4.9	5.4	5.8
Sour cream	L	1.0	1.0	0.9	0.9	1.0	1.1	1.2	1.3	1.4	1.3	1.4
Ice cream	L	10.9	11.7	11.4	10.9	10.3	10.2	10.0	8.6	9.2	9.5	8.7
Margarine	L	4.9	4.3	5.1	5.3	5.4	5.4	5.2	5.0	4.9	4.8	4.7

a Not including cheddar and other cheese used in process cheese.

b Per capita consumption of whey and skim milk cheese is included in this category.

Source: Statistics Canada, Catalogue No. 32-229, 32-230 and 21-020.