CANADA'S BEEF INDUSTRY

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This paper will provide a brief overview of Canada's beef industry today with some brief reference to the historical developments of the industry and some consideration of the prospects for the future.

An attempt will be made to limit this paper to factual statistics and to present as many as possible of the more significant figures in tabular or graphical form.

Historical Development

The beef industry is as old (or as young) as Canada, but in its earliest stages in Eastern Canada there was little distinction between the dairy herd and the beef herd. Cows were kept for the dual purpose of milk and meat production and it was only with the importation of improved strains of beef cattle from Britian and dairy breeds from Scotland, the Channel Islands and the Netherlands in mid 1800's that dairy and beef production began to become distinct husbandries. In fact, only very recently did dual purpose cattle cease to play an important role. While beef production has become a distinct enterprise from dairy production it must be remembered that the specialized dairy industry remains an important contributor to the total beef supply - supplying the total market for veal calves, roughly 40% of the supply of slaughter cows and a small, but expanding percentage of the fed beef.

In western Canada the pattern of development of the beef industry was different and long before the Northwest Territories became provinces of Canada a cattle industry was developing as a northward extension of the cattle ranches of western U. S. A. A fascinating account of this development is rendered by Grant MacEwan, now Lieutenant Governor of Alberta.[1]

Canadian Geography and the Beef Industry

Canada is a nation of vast geographical area stretching 5,000 miles from coast to coast and populated by 22 million citizens, 75% of whom live in urban areas [2]. The nations farmers and farm families comprise less than 7% of our total population [3]. This population distribution is as follows.

TABLE 1

Human Population and Distribution - Canada - 1971

	Atlantic	Quebec	Ontario	Prairies	B. C.
Total	2,037	6,030	7,815	3,603	2,196

The human population distribution is contrasted with the distribution in beef cow population and in the distribution of total beef slaughter. (Tables 2 and 3)

TABLE 2

Beef Cow Population - Dairy Cow Population
('000 head)

	Atlantic	Quebec	Ontario	Prairies	B. C.	Total
1. Beef Cows	49	129	395	2,603	162	3,338
Beef Heifers	23	31	252	615	35	959
Total	72	160	647	3,218	197	4,297
Percent	1.6	3.7	15.2	75.0	4.5	100
2. Diary Cows and Heifers	139	1,172	1,030	467	103	2,911
Percent	4.7	40.3	35.4	16.0	3.5	100

While it is acceptable to group the prairie provinces for breeding herd population purposes, it is useful to note that half of the reported prairie beef cow population is to be found in Alberta, with Saskatchewan having 70% as many cows and heifers as Alberta and Manitoba having the balance.

In considering inspected slaughter, however, it is essential to consider Alberta separately.

TABLE 3

Inspected Slaughter ('000 head)

	Atlantic & Quebec	Ontario	Sask & Manitoba	Alberta	B. C.
1. Fed Cattle	27	681	411	811	31
% of Total	11.5	74.5	70.7	80.0	79.5
2. Other	208	234	170	205	8
% of Total	88.5	25.5	29.3	20.0	20.5
3. Total	235	915	581	1,016	39
Total Canadian Slaughter: 2,787,000 head					
% of Total	8.4	32.9	20.9	36.4	1.4

It is interesting to compare the human population distribution and the distribution of cattle population and cattle slaughter and to discover that:

- The Atlantic Provinces and Quebec with 36% of the Canadian population is deficient in beef cows and heifers, is self sufficient in dairy production and is a deficient area in total slaughter.

- Ontario with 36% of the human population and 33% of the slaughter is essentially self sufficient.

- The Prairies (Manitoba, Saskatchewan and Alberta), vastly over-produce regional requirements accounting for 57% of total slaughter in a region that contains 16% of the population.

- B. C. where 10% of Canadians live is a deficient area providing scarcely 1% of the total slaughter.

This situation gives rise to large transportation requirements for both products (beef carcasses from Alberta to the metropolitan centres) in Eastern Canada and B. C. and feeder cattle from the prairie and B. C. to the feedlots of Ontario for feeding and eventual slaughter.

Transportation

Beef Carcasses - 250 to 300 rail car loads of beef carcasses per week from western Canada (principally Alberta) to eastern Canada (principally Montreal).

Feeder Cattle - 350,000 to 500,000 feeder cattle per year, principally from the prairies, exclusively to Ontario feedlots.

Slaughter Cattle - Some slaughter cattle move from western Canada to eastern plants for slaughter, but this practice is in decline and in 1971 only 90,000 head were transported for immediate slaughter.

The reasons for the geographic distribution of the beef industry are related to climatic conditions and the types of agricultural land. Vast areas of the Prairies and B. C. are best suited, or solely suited, to grazing purposes. In many parts of the prairies the carrying capacity may vary from a low of 5 acres up to 80 or 100 acres per cow unit. In Ontario by contrast, higher annual precipitation and a longer growing season permit more varied and abundant crop production.

The growing cattle feeding industry in Alberta and the prairies is founded on expanding production of feed grains - chiefly barley; whereas the large cattle feeding industry in Ontario is firmly based on grain corn and corn silage. In the west the ebb and flow of world wheat markets and more recently feed grain markets, has profoundly affected the normal growth pattern of the beef industry.

Import - Export Balance

On balance, Canada is capable of self sufficiency in beef production, but our trade relationships with the world lead to some considerable trade in beef. Our most intimate relationship is, of course, with the United States and some trade in slaughter cattle and product in both direction across our border occurs. In 1971 the dimensions of this trade were as illustrated in Table 4.

(In addition to this favourable balance Canada exported breeding stock to the U. S. A. in 1971 numbering 75,000 head and valued at 30 million dollars. While the exports were principally purebred and commercial dairy stock, there is a growing interest also in our beef breeds.)

TABLE 4

Beef Trade with U. S. A.

Imports

Boneless Beef	29.5 million lbs.	$22 million
Slaughter Cattle	84,000 head	$22 million
Plus small quantities of canned, cooked and processed meat products.		
Total Value:		$44 million

Exports

Beef & Veal	80 million lbs.	$45 million
Cattle & calves for feeding or slaughter	156,000 head	$13 million
Total value:		$58 million

Trade in beef and cattle is attended by import and export tariffs as explained in the attached table. Naturally, also Canada has a schedule of health requirements that importations must meet, but there are at present absolutely no quota restrictions on imports of beef or live cattle. The tariff itself is only nominal and because of liberal provisions for drawback of duty the tariff itself is much more a fiction than a fact.

TABLE 5

Tariff Rates on Cattle and Beef - 1971

	Unit	U.S. Rate on Imports from Canada	Canada Rate on Imports from U. S.	Canada Rate on Imports from Australia & N.Z.
Livestock, purebred for breeding	--	Free	Free	Free
Cattle, slaughter-feeder, under 200 lbs.	lb	1-1/2¢ in quota of 200,000 fiscal yr; 2-1/2¢ over quota	1-1/2¢ no quota	"
Cattle, slaughter - feeder, 200-699 lbs.	lb.	2-1/2¢	1-1/2¢	"
Cattle, slaughter-feeder, 700 lbs. over	lb	1-1/2¢ in quota of 400,000 fiscal yr;(max. 120,000 head per quarter) 2-1/2¢ over quota	1-1/2¢ no quota	"
Cattle, dairy cows 700 lbs. and over	lb.	0.9¢	Free	"
Beef & Veal-fresh/frozen	lb.	3¢	3¢	3¢

Thus our trade with the U. S. A. is only influenced by a modest tariff, transportation costs and the relative value of American and Canadian currency. When our currencies are at par the huge American market which is 13 times the size of our own causes an "import ceiling" about $3.00/cwt live above their prices - (above which our price cannot rise because of imports) and an "export floor" about $3.00/cwt. below their price (below which our price will not drop because of exports).

While the trade balance in beef with the U. S. A. has been favourable, Canada has also experienced rather massive imports of beef from Australia and New Zealand since 1969; and total imports of Oceanic beef in 1970 and 1971 were 123 million pounds and 82 million pounds respectively.

To the end of May 1972 these imports had reached 48 million pounds and were running well ahead of the levels to that date in 1970, the previous record year.

While most of these imports are boneless beef of lower quality the impact of such massive imports is a matter of concern to cattlemen. Except for a very modest 3¢ per pound tariff, Canada as yet exercises no restriction whatsoever over the amount of these imports. Imports of these levels have been computed to account for at least 10% of domestic consumption.

Our Cattle Industry

The annual beef supply is derived from two distinct sources. The larger source was earlier referred to as the Fed Cattle segment and fed cattle on a national basis account for fully 70% of the total annual slaughter. These fed cattle are characteristically youthful cattle, well under 30 months of age at slaughter, the great majority of which have been fed for at least the last portion of their life in feedlots. These "feedlots" may vary in size from small feeding operations that turn over less than 100 head per year to large lots that turn out 5,000 to 15,000 head per year - but the great majority of cattle (perhaps 70%) are fed in feedlots with an annual capacity of less than 400 head.

The routes by which cattle reach a feedlot are varied. All cattle experience essentially the same background up to weaning. Spring calving is the standard, though not the universal, practice. At weaning a percentage of calves are maintained as

stockers turned to grass the next year and sold as either short or long yearlings for feedlot finishing. A larger and growing percentage of weaned calves, however, now move directly to feedlots for a feeding period of 8 to 10 months and reach market at 15 to 18 months of age.

Naturally, such circumstances as current prices, forecasts, availability and price of feed, and individual circumstances dictate which route cattle take. Also it is generally true, though by no means invariable, that a change of ownership occurs at weaning and again when yearling cattle move to feedlot. There have been some steps toward forward integration- the owner of the cow herd maintains ownerhsip until slaughter, but this is not general. The situation where a feedlot operator owns a cow-herd is even less common. However, when we begin to consider the mixed farmer who may typically own 50 to 200 cows, many of these will feed out all or most of their own cattle.

The common characteristic of todays beef industry is, however, the fact that virtually all of the youthful cattle spend at least a short period of time (minimum of 60 days) on a moderately high energy ration based on either coarse grains (western Canada) or grain corn and corn silage (Ontario); hence the term "fed" cattle. The simple fact that fully 80% of the youthful cattle (i.e. 56% of the total slaughter) are graded the top grade CANADA CHOICE is evidence of this fact.

The second and small source of our beef supply is, of course, derived from the slaughter of surplus cows from both the dairy and the beef herd. Such marketings comprise 30% of the total slaughter. Some of the higher quality carcasses from this source are marketed at retail as economical cuts of lower quality beef, but a considerable percentage of this class is used for manufacturing and processing purposes. A distribution of the grades may be seen in Appendix 1.

With modern production techniques such as cows calving regularly as two year olds and each year thereafter, with moderately high reproductive performance an apparent imbalance exists between the supply of fed beef and manufacturing beef. Furthermore, as our technology improves this disparity will increase. This general situation explains why both Canada and the U.S.A. import such large tonnages of Oceanic beef.

Growth of the Beef Herd

Since 1969 our national beef breeding herd has been growing at a moderately rapid rate as is illustrated in Tables 6 and 7 and this growth rate has continued right up to the present time. This sustained growth rate has not yet expressed itself in the market place, but increased marketings will undoubtedly occur in 1973 and thereafter as a result of this growth.

TABLE 6

Growth in Beef Breeding Herd
(June 1, 1969 - June 1, 1971).

	Beef Cows	Beef Heifers
	(Million Head)	
June 1, 1969	2.9	1.0
June 1, 1970	3.1	1.1
June 1, 1971	3.4	1.2
Growth	15.7%	12.5%

Composite Growth. 15%

Human Population Growth 3%

TABLE 7

Rate of Annual Cow & Heifer Slaughter.
('000 head)

Average	Cows	Heifers
1961-1970	673	524
1969	626	660
1970	578	568
1971	627	606
Jan. to May '72	(236)	(240)
Jan. to May '71	(242)	(217)

Fed Cattle Marketing

Fed cattle typically reach market at 15 to 24 months of age. Although there is great interest in feeding bulls, the slaughter of fed cattle consists almost exclusively of steers and heifers. The steer - heifer ratio is normally 2.3:1 and fluctuations in this figure indicate the rate at which heifers

are entering the breeding herd. Steers reach market at about 1100 pounds and heifers at 800 pounds with wide variations dependent upon the specific breed or cross, level of finish, feeding practice followed, etc.

Cattle marketing in Canada is essentially a free or unregulated market with the seller free to determine whether to sell direct to a packer on either a live basis or a dressed carcass basis - or whether to sell through a "terminal market" or a community auction. Under these latter two methods the cattle are sold live by auction.

Marketings through terminals are in decline for a number of reasons, not the least of which is dispersion of packing plants away from the terminals. Marketings through local community auctions are increasing as are direct to packer marketings and this latter trend is most apparent in Alberta and certain parts of Ontario.

Other methods of sale are direct sale to livestock drovers by private treaty, but this practice and the necessity for it will decline as more market information becomes available.

Most beef producers vigourously defend the free market system for what this assures in essence is at least three systems that compete for the available supply of cattle. Were there but one system, the system might become lazy and inefficient.

Breeds and Breeding

During the past decade some rather revolutionary changes have occurred in beef production. The emergence of the specialized feedlot industry has already been noted. Equally as significant has been the new approach to breeding.

During the last several years a great deal more attention has been placed on performance and growth rate and thus the practice of crossbreeding has emerged and found a wide acceptance in the industry. Coincident with this development we have witnessed a tremendous interest in sources of new germ plasm and a great deal of active interest has been shown in a succession of "exotic" or European breeds. In the 1950's the available germ plasm was almost totally restricted to the three British beef breeds - Herefords, Aberdeen Angus and Shorthorns. In the early 1960's however, a quarantine station was established and large numbers of importations of Charolais cattle occurred, followed in more recent years by importations of Simmental, Limousin, Maine Anjou, Chianina, and other breeds. The Charolais breed has now become established as a breed with much to offer

our industry and is used extensively in cross breeding. It is to be expected that a number of the other breeds mentioned will also find a place in the industry.

Beef Carcass Inspection and Grading

Canada enjoys an excellent system of pre and post slaughter health inspection of beef cattle and carcasses and all but the smallest or most isolated plants are under either Federal or Provincial inspection.

Beef carcass grading is almost as widespread and universal as meat inspection and is administered by the Canada Department of Agriculture. At this present time the grading standards are undergoing a significant change and institution of new grading standards will take place on September 5, 1972.

Briefly, the new grade standards will provide for a much more objective assessment of both quality and quantity aspects of a beef carcass than has heretofore been possible. The grading system which has been in existence was based primarily on (a) a rather accurate assessment of maturity based on bone ossification, and
(b) a subjective assessment of quality based on the appearance of the carcass and the conformation of the carcass.

No real attempt was made to grade a carcass on the basis of apparent differences in retail yield or quantity.

The new standards will continue to be based on the same assessment of maturity, but quality will be more objectively appraised. This will be possible because it is intended to knife rib every youthful carcass between the 11th and 12th rib to permit assessment of the cut surface of the longissimus dorsi muscle.

The new standards depart most radically, however, from the existing standards in that they will permit a further subdivision of youthful carcasses on the basis of quantity. By ribbing the carcass as previously mentioned it will be possible to measure fat thickness over the longissimus dorsi muscle and since research indicates an inverse relationship between fatness and yield of retail cuts a subdivision on the basis of fat thickness will indicate important variations in retail yield or cutability. At the same time an assessment of muscling can be made of the entire carcass and on the basis of the size of the longissimus dorsi muscle.

These new, more objective, grade standards represent an important achievement for the Canadian Cattlemen's Association which has sought a meaningful change for the past six years. On the other hand the grade standards soon to be introduced are far from ideal and do not go as far in assessing quantity as is practically possible with present knowledge. For example, an actual measurement of loin eye area was sought, but not achieved. Nevertheless, we feel an important step has been made toward a more objective and descriptive grade standard. Its impact on the industry will be assessed in the months ahead and further change will be sought where appropriate.

Since the Canadian Cattlemen's Association has been intimately involved in bringing about new grading standards I trust two further observations may be permitted. The first is to single out and acknowledge the tremendous assistance and research background provided by Dr. Howard Fredeen and Dr. Ron Usborne both of whom you will meet in this program. Without their expert advice and research documentation I am sure the new standards would not have been realized. Secondly, I am now persuaded that there must be an improved communication between research people and policy people. Changing a major program like a grading schedule in a traumatic experience for all parties concerned. Moreover the more time that passes and the more entrenched a standard becomes the more difficult and traumatic is any change. I am convinced that a steady evolution of the existing grade standards on the basis of new information is the more desirable approach. This requires continuing communication between research personnel, government grading service personnel and the industry. We are determined that this is the course we will take in the future.

Some more detailed information of the new grading standards accompanies these general remarks.

Market Information

Market information services has historically been provided by the Federal Government and the various marketing institutions themselves. Such information was limited to simple reporting and no market analysis was provided and outlook information on only an occasional basis. More recently some provincial governments have tkaen steps in the field of market information and have shown a similar tendency to follow the pattern of simple price reporting established by the Federal Government.

The Canadian Cattlemen's Association has instituted a market analysis service known as CANFAX and this service is the first of its kind for any commodity in Canada. Cattle producers who are members of CANFAX have access to a market analyst who, in effect, through provision of the most recent analysis and information, helps negotiate price level - or at least equips the farmer to negotiate a more satisfactory price himself.

The Market Chain

Beef in Canada moves through a long chain, the important links of which are the producer, the packer, the wholesaler, the retailer and the consumer. As a part of our market intelligence we monitor price levels at every stage and record price margins, markups, etc. Because an important ingredient of pricing occurs at every level we find this information invaluable. The accompanying graph illustrates the essentials of this process. (Chart 3).

Beef Consumption

Beef is the preferred meat in Canada and the remarkable growth in per capita consumption since 1950 parallels the growth in the feedlot industry and is related also to increases in per capita disposable income.

	1950	1960	1970
Per capita consumption	50 lbs.	70 lbs.	86 lbs.
% of Fed Cattle	48%	58%	70%

In 1972 per capita consumption of beef will equal 90 pounds per capita or very nearly so. Per capita consumption in the U. S. A. is 115 lbs. per capita, but the disparity between Canada and the U. S. is not so great as would appear by the figures by virtue of the fact that American carcasses are dressed differently in a manner that makes each carcass weigh 5% more than it would in Canada. Since per capita consumption is calculated on the basis of carcass weight our per capita consumption expressed in American terms would be 95 pounds.

Patterns of consumption are also shifting. Home consumption naturally remains the major outlet, but great expansion is occurring in the hotel and restaurant trade and also in the fast food service sector.

Summary

Perhaps in too superficial a manner, but within the limits of space and time available, I have attempted to present an overview of some of the highlights of our Canadian beef industry. Many aspects of our industry have not been discussed in adequate depth.

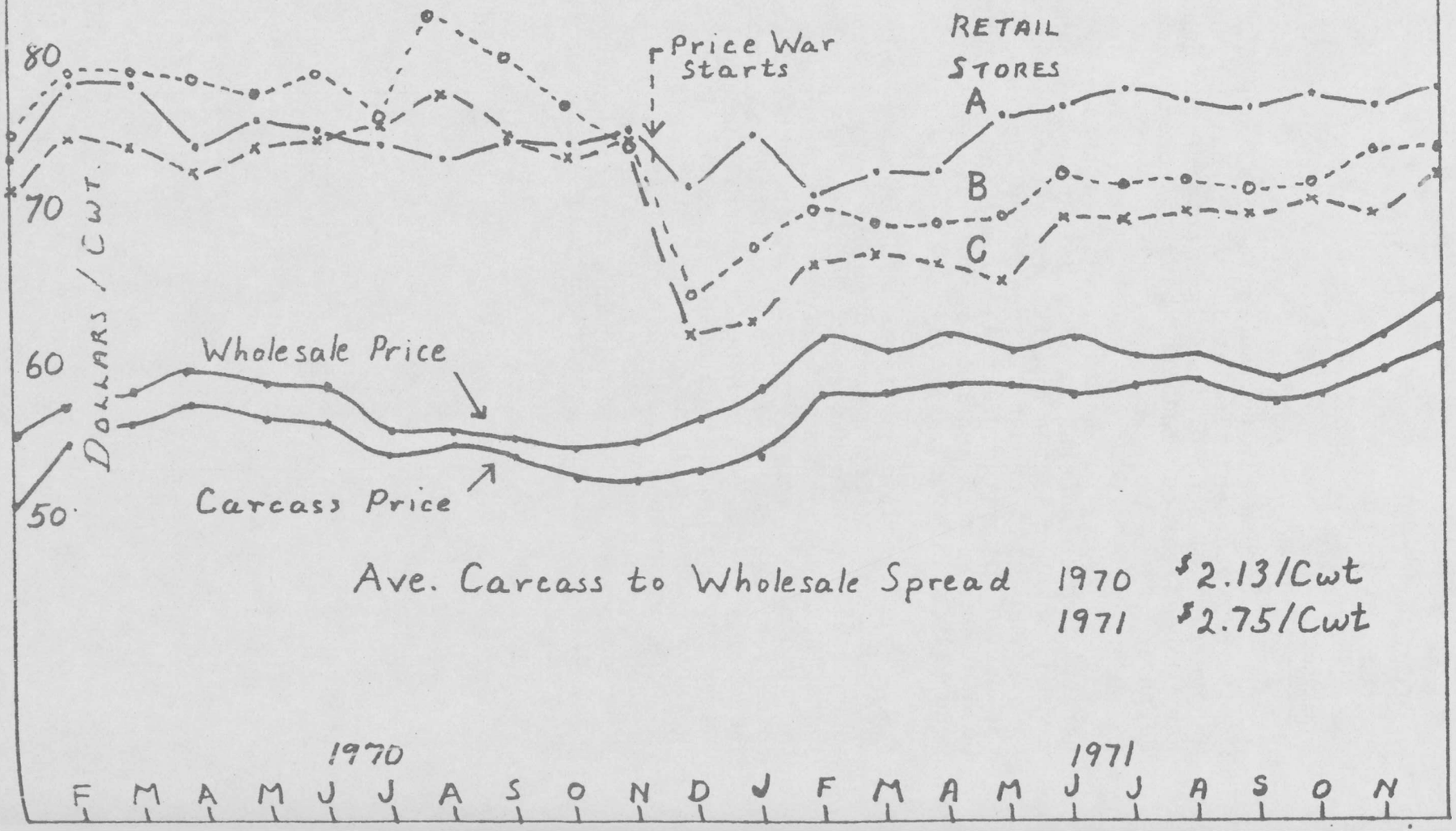
Today, for example, the beef industry and livestock agriculture in general faces a heightened awareness on the part of the consumer in the quality and wholesomeness of the food she buys. Thus, all production practices including most particularly the use of drugs for disease control, and the use of various products as growth promotants comes under the most intense, if generally uninformed, attack.

Government policies both at the Provincial and Federal level can have great impact upon our industry and I would have liked to have time to discuss some of these. Beef producers have some justifiable concern that government policies now extend beyond the traditional service roles and, in fact, appear more and more to be vehicles designed to plan and control the direction of the industry. On the other hand, the beef industry in Canada remains one of the healthiest and most vigorous sectors of our agricultural economy and the fact that this is so suggests that planning on the part of thousands of independent beef producers is much to be preferred to control planning. Beef producers are eager therefore to retain an industry based on responsible free enterprise and unencumbered, inasmuch as is possible, by arbitrary controls.

CHART 3 CARCASS to WHOLESALE SPREADS
WHOLESALE to RETAIL MARKUPS

Basis: Choice Steers Toronto

% Retail Markups Store	A	B	C
1970	32	38	30
1971	24	17	12



Ave. Carcass to Wholesale Spread 1970 $2.13/Cwt
1971 $2.75/Cwt

(14)

BEEF: CARCASSES GRADED IN FEDERALLY INSPECTED PACKING PLANTS
(By Province in which Graded)

Grade		Graded in: B.C.	ALTA.	SASK.	MAN.	ONT.	QUE.	ATL. PR.	TOTAL CANADA
Choice.....	1971	23211	520304	56296	167549	456754	9529	1079	1234722
	1970	36016	474351	61340	172455	466626	19573	679	1231040
Good.....	1971	5174	234328	47471	98203	148135	5213	2693	541217
	1970	9954	208663	43116	101514	150265	9953	2101	525566
Standard.....	1971	2452	56222	11915	29594	76608	3743	4978	185512
	1970	3220	51189	10190	33700	75320	5908	4552	184079
Commercial 1..	1971	695	8960	3544	7711	30963	2701	7431	62005
	1970	1197	8848	3537	9071	28580	3519	6366	61118
Commercial 2..	1971	699	15017	1930	6722	10310	1188	516	36382
	1970	828	11440	1993	5660	8560	1580	491	30552
Commercial 3..	1971	223	15967	2803	3570	14261	23	53	36900
	1970	117	14222	2912	3263	7290	62	40	27906
Utility 1.....	1971	519	3305	1048	2701	12923	4846	4525	29867
	1970	752	2722	1031	2947	12188	4499	4611	28750
Utility 2.....	1971	2324	93848	11303	43159	45159	16867	2502	215807
	1970	2561	72330	13620	43729	41494	14248	2214	190196
Utility 3.....	1971	1664	15798	4953	15473	29705	28075	4358	100026
	1970	1902	12889	5179	15134	29851	24537	3504	92996
Manufacturing..	1971	2168	41826	10378	41823	74590	110868	7255	288908
	1970	4541	30040	7947	29248	64344	136707	6119	278946
Bulls.....	1971	235	10392	4081	8146	15718	15475	1515	55562
	1970	382	8626	2980	5515	12404	18343	1434	49684
TOTAL	1971	39364	1015967	155722	425296	915126	198528	36905	2786908
	1970	61470	895320	153845	422236	896922	238929	32111	2700833

BEEF CARCASSES GRADED - BY PERCENTAGE

Choice.....	1971	59.0	51.2	36.1	39.4	49.9	4.8	2.9	44.3
	1970	58.6	53.0	39.9	40.8	52.0	8.2	2.1	45.6
Good.....	1971	13.1	23.1	30.5	23.1	16.2	2.6	7.3	19.4
	1970	16.2	23.3	28.0	24.0	16.8	4.2	6.5	19.5
Standard.....	1971	6.2	5.5	7.6	7.0	8.4	1.9	13.5	6.7
	1970	5.3	5.7	6.6	8.0	8.4	2.5	14.2	6.8
Commercial 1..	1971	1.8	0.9	2.3	1.9	3.4	1.4	20.1	2.2
	1970	1.9	1.0	2.3	2.1	3.2	1.5	19.8	2.3
Commercial 2..	1971	1.8	1.5	1.2	1.6	1.1	0.6	1.4	1.3
	1970	1.3	1.3	1.3	1.4	1.0	0.7	1.5	1.1
Commercial 3..	1971	0.6	1.6	1.8	0.9	1.6	-	0.1	1.3
	1970	0.2	1.6	1.9	0.8	0.8	-	0.1	1.0
Utility 1.....	1971	1.3	0.3	0.7	0.6	1.4	2.5	12.3	1.1
	1970	1.2	0.3	0.7	0.7	1.3	1.9	14.4	1.1
Utility 2.....	1971	5.9	9.2	7.3	10.2	4.9	8.5	6.8	7.7
	1970	4.2	8.1	8.8	10.4	4.6	5.9	6.9	7.1
Utility 3.....	1971	4.2	1.6	3.2	3.6	3.2	14.1	11.8	3.6
	1970	3.1	1.4	3.4	3.6	3.3	10.3	10.9	3.4
Manufacturing..	1971	5.5	4.1	6.7	9.8	8.2	55.8	19.7	10.4
	1970	7.4	3.3	5.2	6.9	7.2	57.2	19.1	10.3
Bulls.....	1971	0.6	1.0	2.6	1.9	1.7	7.8	4.1	2.0
	1970	0.6	1.0	1.9	1.3	1.4	7.6	4.5	1.8

SUMMARY OF
THE NEW BEEF CARCASS GRADING REGULATIONS
FOR CANADA

NEW GRADE	STANDARDS	OLD GRADE
1. CANADA A - (youthful; good to excellent quality)	a. Maturity Class I b. Lean - firm - fine texture - bright red colour - slight marbling c. Fat - firm - white or slightly tinged d. Muscling - free from marked deficiency e. Further described by Fat Levels, 1, 2, 3 and 4 for Canada A as follows:	Canada Choice Canada Good Canada Standard Canada Commercial Class 3
2. CANADA B - (youthful; medium quality)	a. Maturity Class I b. Lean - moderately firm - somewhat coarse texture - bright to medium dark red - no marbling c. Fat - firm or slightly soft - white to pale yellow d. Muscling - free from marked deficiency e. Further described by Fat Levels, 1, 2, 3 and 4 for Canada B as follows:	Canada Choice Canada Good Canada Standard Canada Commercial - Class I Canada Commercial - Class 3
3. CANADA C - CLASS I (youthful and intermediate age; medium to good quality)	a. Maturity Classes I and II b. Lean - moderately firm - bright to medium dark red c. Fat - firm or slightly soft - white to pale yellow - light covering - no excess proportion d. Muscling - low medium to excellent e. To include carcasses with less than Fat Level 1, Canada B with Canada B quality and carcasses less than 300 lbs.	Canada Commercial - Class I Canada Commercial - Class 2

Warm Carcass Wt. (lbs.)

Warm Carcass Wt. (lbs.)	1.	2.	3.	4.
300-499	.2-.3	.3I-.5	.5I-.7	.7I+
500-699	.2-.4	.4I-.6	.6I-.8	.8I+
700+	.3-.5	.5I-.7	.7I-.9	.9I+

Warm Carcass Wt. (lbs.)

Warm Carcass Wt. (lbs.)	1.	2.	3.	4.
300-499	.I-.3	.3I-.5	.5I-.7	.7I+
500-699	.I-.4	.4I-.6	.6I-.8	.8I+
700+	.2-.5	.5I-.7	.7I-.9	.9I+

NEW GRADE	STANDARDS	OLD GRADE
4. CANADA C - CLASS 2 (youthful and intermediate age; poor quality)	a. Maturity Classes I and II b. Lean - soft - coarse and sinewy texture - bright to extremely dark red c. Fat - firm to soft - white to lemon yellow - slight covering - no excess proportion d. Muscling - excellent to deficient e. To include carcasses with less than Fat Level I, Canada B, and less than Canada B quality; also carcasses less than 300 lbs.	Canada Commercial - Class I Canada Commercial - Class 2 Canada Utility Class I
5. CANADA D - CLASS 1 (mature select cows)	a. Maturity Class III b. Fat - firm - white to pale yellow - well over ribs and loins - moderately over hips and chucks - no excess proportion c. Muscling - excellent to good	Canada Utility - Class 2
6. CANADA D - CLASS 2 (mature good to medium cows and steers)	a. Maturity Class III b. Fat - firm to slightly soft - white to lemon yellow - cover most of surface - no excess proportion c. Muscling - medium	Canada Utility - Class 2 Canada Utility - Class 3
7. CANADA D - CLASS 3 (mature fair to plain cows and steers)	a. Maturity Class III b. Fat - soft - white to deep lemon yellow - light to slight covering - no excess proportion c. Muscling - fair	Canada Utility Class 3
8. CANADA D - CLASS 4 (mature manufacturing cows and steers)	a. Maturity Class III; but to include carcasses extremely deficient in muscling from Maturity Classes I and II b. Fat - little or none to an excess proportion - to include those with an excess proportion from Maturity Class II c. Muscling - poor	Canada Utility - Class I Canada Manufacturing

Summary of the New Beef Carcass
Grading Regulations for Canada - cont'd

NEW GRADE	STANDARDS	OLD GRADE
9. CANADA E - (mature stags and bulls	a. Maturity Class III but may include more youthful animals if: b. Lean - coarse and sticky - dark	Canada Bull

ADDITIONAL POINTS

1. Beef Carcass means the entire carcass of an animal of the bovine species, except the hide, that portion of the head and neck forward of the first cervical joint, that part of the fore-shank below the knee joint, that part of the hind-shank below the hock joint, the alimentary canal, liver, kidneys, spleen, genital tract and genitalia, mammary system, heart, lungs, membranous portion of the diaphragm, pillar of the diaphragm (hanging tender), spinal cord, internal fats including channel fat, kidney fat, pelvic fat and heart fat, external cod fat and udder fat, the tail at a point between the first and second coccygeal vertebrae or any portion of the beef carcass, the removal of which is required under the Meat Inspection Act or any regulations made thereunder.

2. The Canada A and Canada B quality grades will be subdivided into four fat levels related to warm carcass weight, determined by taking one fat measurement; such measurement to be made between the 11th and 12th ribs after the carcass has been knife-ribbed at the minimum point of thickness in the 4th quadrant on the longitudinal axis of the Longissimus muscle and perpendicular to the outside surface of the fat.

3. All beef carcasses which are graded must be branded as follows:

Canada A-1, A-2, A-3, and A-4	-	Red Ink
Canada B	-	Blue Ink
Canada C	-	Brown Ink
Canada D and E	-	Black Ink

WRU:evn
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