North American Beef and Cattle Trade: A Current Perspective

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Implementation of the North American Free Trade Agreement (NAFTA) in 1994 played a large role in the increase in total agricultural trade between the United States, Canada, and Mexico. In recent years, however, questions have arisen about changes in the U.S. beef and cattle industries that have occurred since the implementation of NAFTA. This report will address the net positions of the United States, Canada, and Mexico in global and regional markets and illustrate some recent trends in beef and cattle trade among the three countries. All values are reported in U.S. dollars. The sources of data presented in the tables and figures in this report are shown in Appendix A.

WORLD TRADE – 2001

According to the World Trade Organization (2002), total world trade of merchandise and services in 2001 was valued at $15,501.3 billion. Overall, the world had $7,615 billion in exports and $7,886.3 billion in imports in 2001. It was the first year in almost two decades that world trade decreased from the previous year, which is attributed to declines in major industrial country markets and East Asian economies. The effects of September 11, 2001, also had repercussions on global stock markets, consumer confidence, trade, and worldwide economic growth.

The United States accounted for 15.24% of total world trade and was the leading exporter and importer of merchandise in 2001 with $730.8 billion in exports and $1,180.2 billion in imports. The United States was also the leader in commercial services with exports of $263.4 billion and imports of $187.7 billion. Canada accounted for 3.64% of total world trade while Mexico generated 2.35% of total world trade in 2001. Canada's total trade was $564.2 billion, $295.5 billion in exports and $268.7 billion in imports. Mexico had total trade of $363.7 billion, $171 billion in exports and $192.7 billion in imports. The distribution of total 2001 world trade between the United States, Canada, Mexico, and the rest of the world is shown in fig. 1 and table 1.

The total value of world agricultural trade in 2001 was $547.5 billion (table 2), which amounted to 4.56% of all world merchandise exports and imports of $12.6 trillion in that year. Agricultural trade attributable to the United States was 24.09% of the world agricultural trade total in 2001 (fig. 2). The value of U.S. agricultural trade in 2001 was $138.42 billion, of which $70.02 billion were exports and $68.4 billion were imports. By comparison, Canada was responsible for 8.55%, and Mexico accounted for 3.81% of world agricultural trade in 2001. Canada had exports of $33.57 billion and imports of $15.55 billion. Mexico's exports totaled $9.07 billion, while its imports totaled $12.79 billion.

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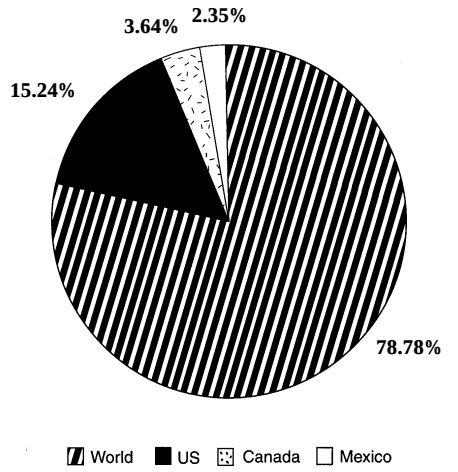

Fig. 1. 2001 Total Value of All World Trade (Exports and Imports)

Table 1. 2001 Total Value of All World Trade (Exports and Imports)

United States	$	2,362.1
Canada	$	564.2
Mexico	$	363.7
World	$	12,211.3
Total	$	15,501.3

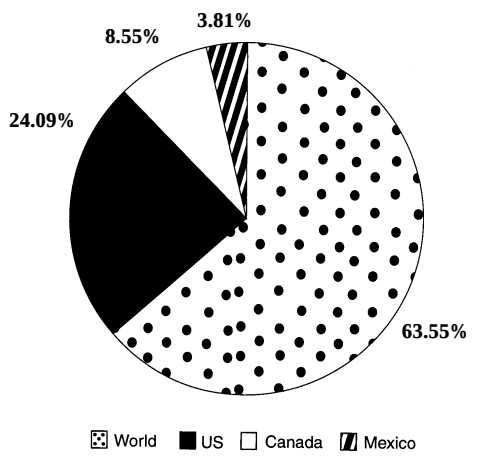

Fig. 2. 2001 Total Value of World Agricultural Trade (Exports and Imports)

Table 2. 2001 Total Value of World Agricultural Trade (Exports and Imports)

United States	$	138.4
Canada	$	49.1
Mexico	$	21.9
World	$	365.1
Total	$	574.5

NORTH AMERICAN BEEF AND CATTLE TRADE

NAFTA Implications

Beef and cattle trade between the United States, Mexico, and Canada has increased since NAFTA was implemented in the 1990s. Some of the most dramatic increases are evident in the export of beef from the United States to Mexico and cattle from the United States to Canada. The Restricted Northwest Feeder Project[2] recently has increased exports of feeder cattle from northern U.S. states to Canada under reduced sanitary requirements during the fall and winter months.

Prior to NAFTA, purebred breeding and dairy cattle were imported into the United States with no duties, and the United States had a tariff of only 2.2 cents per kilogram on all other cattle. Beef imports were treated in a similar fashion with a 2-cent-per-pound tax on imports (Zahniser and Link 2002). Mexico and Canada were exempt from the U.S. Meat Import Law[3]. By 1994, the small U.S. tariffs were completely eliminated under both NAFTA and the 1989 Canadian-U.S. Free Trade Agreement (Zahniser and Link 2002).

[2]The restrictions of this project state that "restricted feeders" that originate from approved states may be exported to Canada during the fall and winter months (Oct. 1 – March 31) without test, having only a USDA Certificate of Veterinary Inspection. The imported animals are treated for anaplasmosis following their arrival and are then permitted to move without restriction. To qualify to export, states must be officially free of bovine brucellosis and tuberculosis and be classified by Canada as low risk for bluetongue.

[3]The U.S. Meat Import Law was a result of the Meat Import Act of 1979. This act required the President of the United States to impose import quotas on fresh, chilled, and frozen beef, veal, mutton, and goat if the Secretary of Agriculture estimates that annual imports will exceed a basic import level, calculated each year based on a production adjustment factor and a counter cyclical factor. This Act was repealed in 1995 and replaced with a Tariff Rate Quota for countries other than Canada and Mexico.

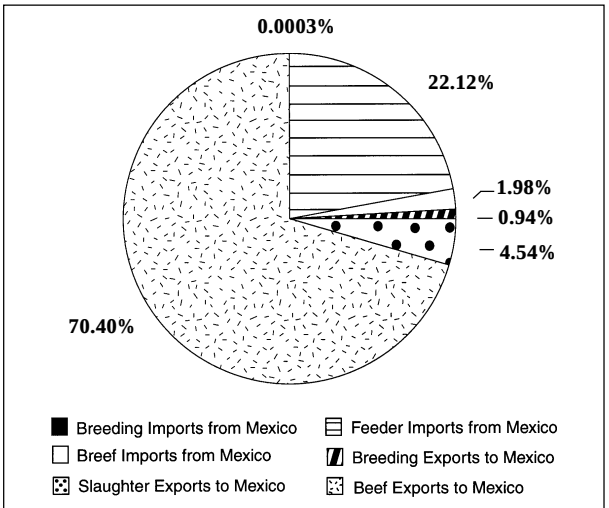

Fig. 3. 2002 Total Value of U.S.–Mexico Beef and Cattle Trade

Table 3. 2002 Total Value of U.S.–Mexico Beef and Cattle Trade

Breeding Imports from Mexico	$	4,420
Feeder Imports from Mexico	$	300,495,602
Beef Imports from Mexico	$	26,833,152
Breeding Exports to Mexico	$	12,802,403
Slaughter Exports to Mexico	$	62,027,241
Beef Exports to Mexico	$	956,267,976
Total	$	1,358,430,794

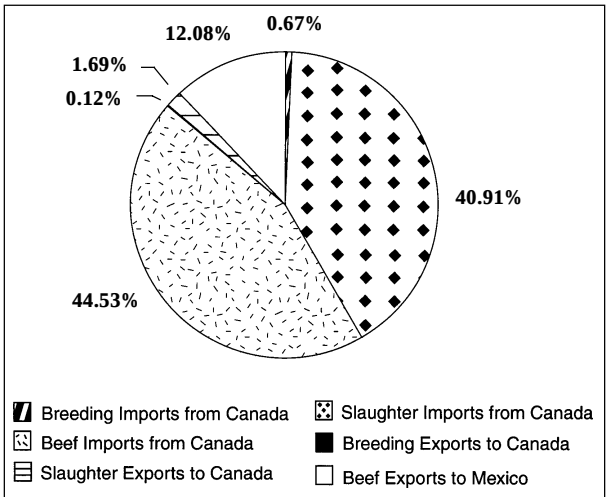

Fig. 4. 2002 Total Value of U.S.-Canada Beef and Cattle Trade

Table 4. 2002 Total Value of U.S.-Canada Beef and Cattle Trade

Breeding Imports from Canada	$	18,404,241
Slaughter Imports from Canada	$	1,127,772,028
Beef Imports from Canada	$	1,227,607,233
Breeding Exports to Canada	$	3,391,037
Slaughter Exports to Canada	$	46,600,643
Beef Exports to Canada	$	332,985,906
Total	$	2,756,761,088

Canada maintained an import policy that was similar to that of the United States during the years prior to NAFTA. It allowed purebred and breeding cattle to be imported tax-free and charged a 2.2-cent per kilogram duty on all other cattle. Elimination of the tax on cattle imported into Canada from the United States began in 1989, with taxes on both Mexican and U.S. imports eliminated by 1994. The U.S. Meat Import Act was repealed as of Jan. 1, 1995. Canada repealed its Meat Import Act in 1994.

Prior to the implementation of NAFTA, Mexico had 15% taxes on non-breeding cattle, 20% on fresh beef, and 25% on frozen beef. All these tariffs were eliminated in 1994. There was also a 20% tax on offal[4] that was phased out in a nine-year period that ended on Jan. 1, 2003 (Zahniser and Link 2002).

United States - Mexico Agricultural and Beef-Cattle Trade

Agricultural trade between the United States and Mexico has nearly doubled from $7.48 billion since the implementation of NAFTA, due to reductions in trade barriers and increased economic growth in the two countries (USDA/FAS 2003). The total value of agricultural trade between the United States and Mexico was $13.74 billion in 2002 (USDA/FAS 2003). Trade in beef and cattle between the United States and Mexico

[4]Offal – edible organs of livestock including cattle, swine, sheep, and goats.

was well established long before NAFTA was implemented (Mitchell 2000) and had a total value of $1.36 billion in 2002. It is difficult to discern the effects of NAFTA on U.S.-Mexico beef and cattle trade due to drought, changes in the Mexican economy and new export regulations in Mexico, which have occurred since the treaty was implemented. In 1995, severe drought and the devaluation of the Mexican peso forced many Mexican producers to liquidate their cattle herds and quickly ship large numbers of feeder cattle into the U.S. market. This resulted in a spike in feeder cattle imports to the United States from Mexico, which is commonly attributed to NAFTA but was due to a number of simultaneous events (Mitchell et al. 2001).

Fig. 3 shows a breakdown of 2002 U.S.-Mexico beef and cattle trade by major product category. In 2002, approximately 70% of U.S.-Mexico beef and cattle trade consisted of beef moving from the United States to Mexico. Feeder cattle moving from Mexico to the United States accounted for 22.12% of all beef-cattle trade between the two countries and represented 816,456 animals valued at $300.5 million (table 3). United States imports of beef from Mexico, and U.S. breeding and slaughter cattle exported to Mexico, are a small part of total beef and cattle trade between the United States and Mexico.

United States-Canada Agricultural and Beef-Cattle Trade

Agricultural trade between the U.S. and Canada has also grown since the implementation of NAFTA. This growth has been almost as significant as the growth in U.S.-Mexico trade, increasing from $10.85 billion in 1994 to $19.01 billion in 2002.

The Canadian beef and cattle industries are very similar to those in the United States, which has facilitated U.S.-Canada beef and cattle trade in both the pre- and post-NAFTA periods. The U.S. meat grading system differs from the one used in Canada and, because the U.S. Department of Agriculture (USDA) graded beef receives higher premiums, many Canadian producers ship cattle into the United States for slaughter so that they may receive the USDA grade (Zahniser and Link 2002). In 2002, total U.S.-Canada beef and cattle trade was valued at $2.76 billion (table 4). Fig. 4 shows that, in 2002, beef imports to the United States from Canada comprised 44.53% of total beef-cattle trade between the two countries. Slaughter cattle imports from Canada accounted for 40.91% of the total value. Beef moving from the United States to Canada comprises approximately 12% of the total value of bilateral beef-cattle trade, while exports of U.S. slaughter and breeding cattle to Canada and U.S. imports of Canadian breeding cattle are small percentages of total U.S.-Canada beef-cattle trade.

In 2002, the total value of U.S. beef and cattle trade with Canada and Mexico was $4.12 billion. Fig. 5 shows that the United States was a net importer of beef and cattle products from Mexico and Canada in 2002. Table 5 shows that the United States has had net importer status for beef and cattle products from Mexico and Canada for the past five years (USDA/FAS 2003).

Beef Trade

The United States is the world's largest producer of beef[5] (USDA/ERS 2003). The top four export markets for U.S. beef in 2001 were Japan, Mexico, South Korea, and Canada. In 2002, however, Mexico overtook Japan and became the largest export market (USMEF 2003). Beef trade in North America was greatly influenced by the reduction in

[5]This includes all beef and veal reported in metric tons in the FATUS (Foreign Agricultural Trade of the United States) commodity aggregations. Fresh and frozen beef and veal include carcasses and half carcasses and processed and not processed bone in and boneless cuts. Prepared and preserved beef and veal includes sausages, salted, dried, smoked, cured, and pickled meat, as well as corned beef and other preparations.

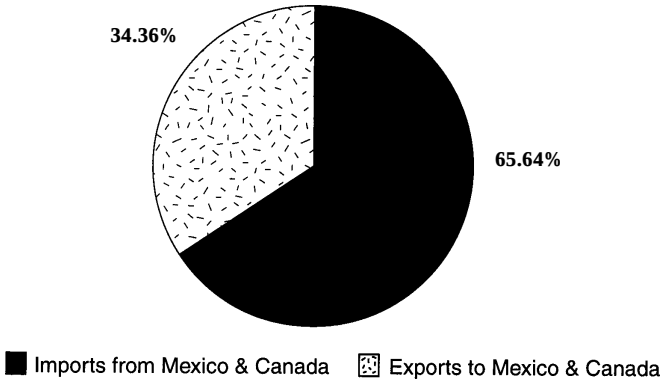

Fig. 5. 2002 Total Value of U.S. Beef and Cattle Trade with Canada and Mexico

Table 5. Total Value of U.S. Beef and Cattle Trade with Canada and Mexico 1998-2002

	Imports from Mexico & Canada	Exports to Mexico & Canada	Total
1998	$ 2,028,586,930	$ 1,101,676,570	$ 3,130,263,500
1999	$ 2,093,125,508	$ 1,151,297,071	$ 3,244,422,579
2000	$ 2,291,224,247	$ 1,350,442,059	$ 3,641,666,306
2001	$ 2,718,309,042	$ 1,479,126,705	$ 4,197,435,747
2002	$ 2,701,116,676	$ 1,414,075,206	$ 4,115,191,882

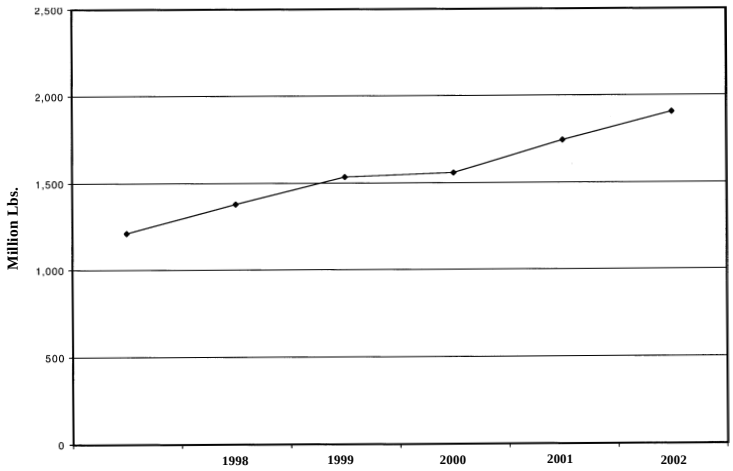

Fig. 6. Total U.S. Beef Trade 1997-2002 (Exports and Imports)

Table 6. Total U.S. Beef Trade 1997-2002 (Exports and Imports)

	Million Pounds	Value (Incl. Hides)
1997	1,211.77	$ 1,636,885,577
1998	1,379.69	$ 1,838,441,401
1999	1,534.67	$ 2,077,136,704
2000	1,559.37	$ 2,228,886,635
2001	1,744.34	$ 2,477,851,663
2002	1,904.75	$ 2,543,694,267

(by weight at slaughter in the U.S., after feeding in the U.S.) can be attributed to Mexico. This is .73% of the total U.S. beef production of 27.2 billion pounds in 2002.

Fig. 14 shows that live cattle imported into the United States from Canada are primarily slaughter cattle (61.37%), or in the heavier weight categories (440 to > 705 pounds). In 2002, U.S. imports of Canadian cattle in these heavier weight categories contributed 446,834 to the total of 1,669,208 head live cattle imported into the United States from Canada, worth $247.7 million. Canadian cattle that are imported ready for slaughter totaled 1,024,378 head in 2002 and were worth $745.9 million (table 14).

It can be assumed that the cattle imported from Canada are grain fed and ready to slaughter, similar to cattle produced in the United States. The average dressed weight of U.S. slaughter steers in 2002 was 823 pounds (USDA/NASS 2003); so 1,024,378 head of Canadian slaughter cattle would produce 843.1 million pounds of Canadian beef (or 3.1% of the 27.2 billion pounds of U.S. beef supply in 2002). We can assume that the cattle in the heavier weight categories (440 to 705 pounds) are fed and slaughtered in the U.S. at the average live weight for slaughter steers. Assuming that the 221,782 head in the 440–705 category have an average weight of 572.5 pounds and a dressing percentage of 65.68%, then when slaughtered at the live weight of 1,253 pounds, they would produce 182.5 million pounds of beef; 83.4 million pounds is Canadian beef and 99.1 million pounds is U.S. produced. Likewise, the cattle in the 705-pound and greater category would produce 252.6 million pounds of beef when slaughtered; 142.1 million pounds are Canadian beef and 110.5 million pounds would be U.S. produced. The lighter weight categories are not considered in the amount of beef they produce because of the uncertainty of their destination in the United States. It is possible they may be slaughtered for veal or fed and slaughtered at a later date.

In 2002, exports of live slaughter cattle to Mexico totaled 93,685 head. An additional 132,484 head were exported to Canada but these are assumed to be feeder animals that are fed in Canada and returned to the U.S. for slaughter, in order to receive USDA quality grades.

Other Cattle Products

Trade of bovine genetic products (i.e., bovine semen and embryos) between the United States, Mexico, and Canada also occurs. The majority of this trade involves bovine semen moving between the United States and Canada. In 2002 U.S. imports of bovine semen from Canada were worth $13.6 million while U.S. exports of bovine semen to Canada totaled $3.8 million. Exports of U.S. bovine semen to Mexico were worth $5.5 million in 2002. Trade in bovine embryos is relatively small, with the value of U.S. embryo exports and imports totaling $644,884 in 2002.

LOOKING TOWARD THE FUTURE

The U.S., Mexican, and Canadian beef and cattle industries will continue to evolve and face new challenges in the coming years. Trade in beef and cattle products among the three countries may become even more liberalized, or new trade restrictions could be implemented. Increased protectionism in the North American beef and cattle markets could result from growing concerns about the potential animal and/or human health and economic impacts of diseases such as foot and mouth, bovine spongiform encephalopathy, anthrax, tuberculosis, and brucellosis. However, despite the threat of animal diseases, a growing and increasingly affluent North American population will continue to demand high quality and greater quantities of beef products.

Acknowledgements

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Appendix A: Data Source for Tables and Figures

Figures 1, 2, 3, and 4–World Trade Organization, International Trade Statistics 2001. Available at: www.wto.org/english/res_e/statis_e/its2002_e/its02_toc_e.htm

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Figures 5 to 14–United States Department of Agriculture, Foreign Agricultural Service. FATUS Commodity Aggregation Reports. Available at: www.fas.usda.gov/ustrade/

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