World Production Update: Why Agricultural Lawyers Need to Know about International Law

by

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WORLD PRODUCTION UPDATE: WHY AGRICULTURAL LAWYERS NEED TO KNOW ABOUT INTERNATIONAL TRADE LAW

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I. INTRODUCTION

A paper entitled "World Production Update" is an odd sort of thing to have in a law journal. It seems more like an economics paper than a legal one. Not being a professionally trained economist, the job of preparing such a paper is indeed a daunting one. However, after some reflection it is possible to make a tangible, if somewhat tenuous, link between an examination of world production trends and agricultural law. Intuitively, one might posit some correlation between agricultural production, trade and commercial activity on the one hand and consumption of legal services by agricultural clients on the other—be they individual farmers, agribusiness people, or members of agricultural and trade government departments. But behind the numbers are complexities that interfere with such a simple correlation. The numbers, of course, reveal trends in production, trade, and prices at the global and North American levels, but they do not adequately reflect the complicated matrix of politics, ideology, and culture that lies at the heart of national and international agricultural policy and law.

This Article is in three parts. In the first part, there is a rapid succession of graphs and charts that will tell a story of global and North American trends in food production, consumption, trade, and pricing.[1] Next, an analysis of the implications arising from these agricultural trends is presented.[2] Finally, a "report card" is

1. *See* discussion *infra* Part II.
2. *See* discussion *infra* Part III.

presented outlining the good news and bad news for agricultural lawyers arising from the identified trends.[3] Peering through this crystal ball, what agricultural legal business might come out of all of this?

II. LIES, DAMN LIES, AND STATISTICS[4]

A proper economic analysis of the subject of future trends in world production might well focus on measuring increased demand and increased supply, and provide indications as to price levels of agricultural commodities in the months and years to come. However beyond the potential for increased demand through increased population growth and a statistical assessment of production trends presented below, this Article does not attempt to predict the economics of food production into the next century. Instead, it is hoped that the production numbers that follow will provide a backdrop for the conclusions drawn about how world production trends might impact the work that agricultural and trade lawyers perform.

A. *Population and Potential Demand for Agricultural Products*

World population has continued to grow: from one billion in 1810 to two billion in 1927 to three billion in 1960 to almost six billion today.[5] Given current demographics and birth rates, predictions indicate that the world population will not level out until 2050, when the world population is expected to reach almost ten billion.[6]

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3. *See* discussion *infra* Part IV.

4. This Article uses baselines of 1986-1991-1996 whenever possible for the purposes of comparative analysis. More recent statistics, however, are provided where there has been a significant change in trends and where these statistics are available.

5. *See* World Resources Inst., Teacher's Guide to World Resources 1992-93, Overhead Transparency Master 5.1, 5.3 (1992) (on file with author).

6. *See* U.S. Bureau of the Census, *Total Midyear Population for the World: 1950-2050* (last modified Dec. 28, 1998) <http://www.census.gov/ipc/www/worldpop.html>.

WORLD POPULATION FROM 1951 TO PRESENT AND PROJECTED TO 2050[7]

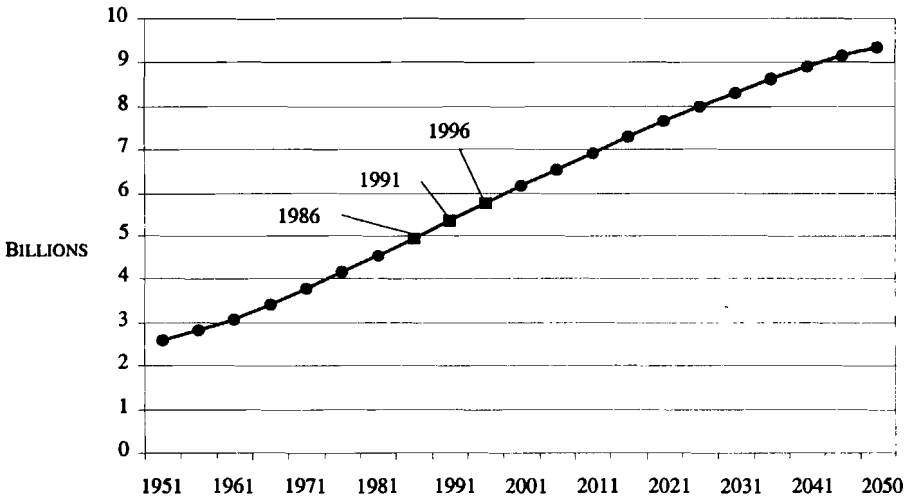

FIGURE 1

As of 1997, about 78% of the world's population lived in developing countries while the remainder lived in developed countries.[8] Figure 2 shows that about 400 million, or 6.8% of world population, is in the North American Free Trade Area, a figure down about 0.2% from what it was a decade ago when the population of North America was 350 million.[9]

7. *Id.*

8. Author's calculations based on FAO statistics. *See* <http://apps.fao.org/lim500/nph-wrap.pl?Population&Domain=SUA> (search for Country: DEV.PED ALL, DEV.PING ALL, WORLD+; Item: Population; Element: Total; Year: 1997) (last modified Aug. 24, 1998).

9. Author's calculations based on FAO statistics. *See id.* (search for Country: NAFTA+, WORLD+; Item: Population; Element: Total; Year: 1986, 1991, 1996).

NAFTA POPULATION IN MILLIONS[10]

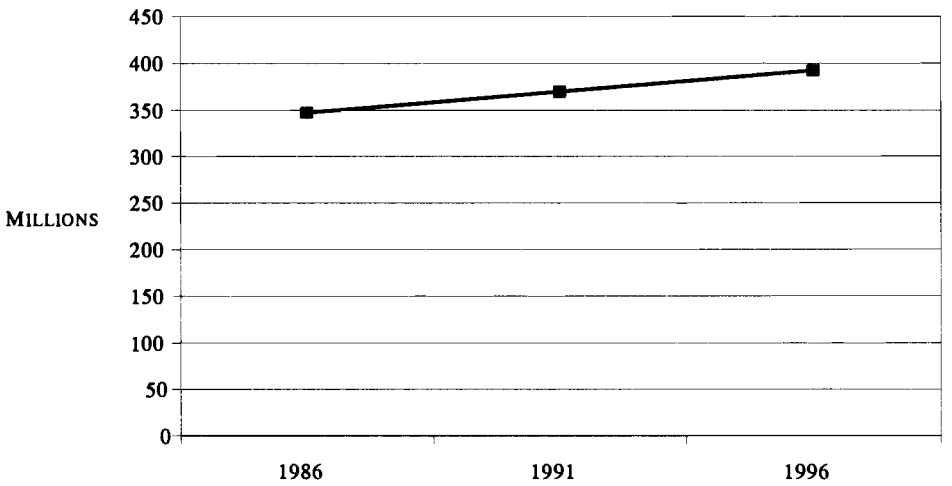

FIGURE 2

However, population growth in North America has not been even amongst the three countries that make up the continent. In the NAFTA area, population growth has been sharpest in Mexico (26%), with United States (10%) and Canadian (12%) at less than half of Mexico's population growth rate, which can be seen in Figure 3 below.[11]

10. *Id.* (search for Country: NAFTA+; Item: Population; Element: Total; Year: 1986, 1991, 1996).

11. Author's calculations from on FAO statistics. *See id.* (search for Country: Canada, Mexico, USA; Item: Population; Element: Total; Year: 1986, 1991, 1996).

NAFTA COUNTRY POPULATION IN MILLIONS[12]

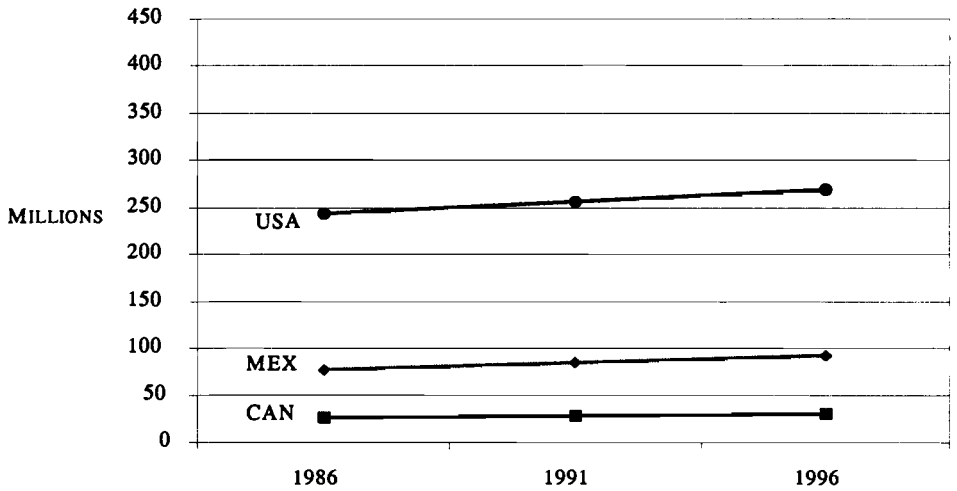

FIGURE 3

Undoubtedly, increased population growth promises increased food consumption. But exactly how much new demand for food will there be? While it may be difficult to assess increased demand, one measure—food supply expressed as available calories per capita—is more easily monitored. World-wide food supply has experienced a moderate increase of 3% over the past decade.[13]

12. *Id.*

13. Author's calculations from FAO statistics. *See* <http://apps.fao.org/lim500/nph-wrap.pl?FS.CropsAndProducts&Domain=FS&servlet=1> (search for Country: WORLD; Item: GRAND TOTAL+; Element: Cal Percap Unit; Year: 1986, 1991, 1996) (last modified June 12, 1998).

WORLD-WIDE FOOD CONSUMPTION IN CALORIES/DAY PER CAPITA[14]

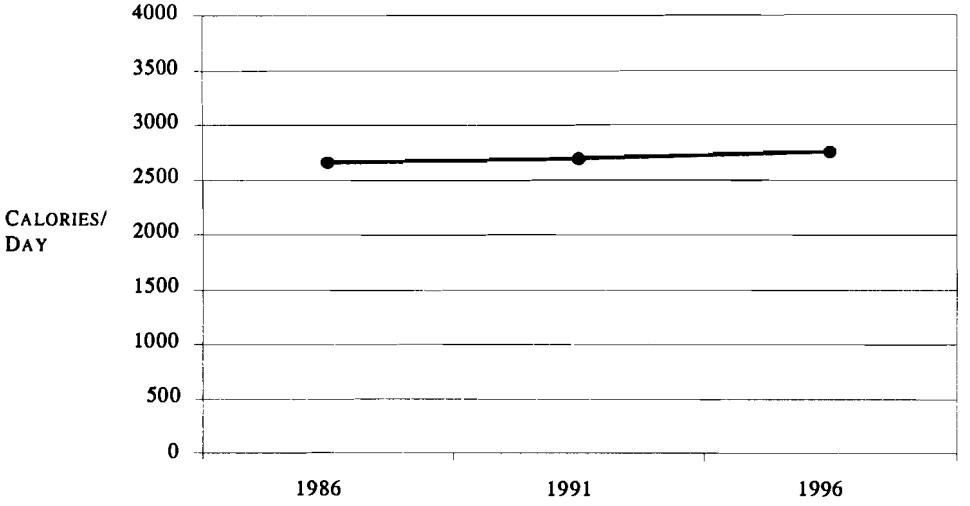

FIGURE 4

Changes in food supply per capita have been quite varied in North American countries over the past decade, with the United States' food supply increasing by 9%, the Mexican food supply by less than 1%, and the Canadian food supply slipping by less than 1%.[15]

14. *Id.*

15. Author's calculations from FAO statistics. *See id.* (search for Country: Canada, Mexico, USA; Item: GRAND TOTAL+; Element: Cal Percap Unit; Year: 1986, 1991, 1996).

NORTH AMERICAN FOOD CONSUMPTION IN CALORIES/DAY PER CAPITA[16]

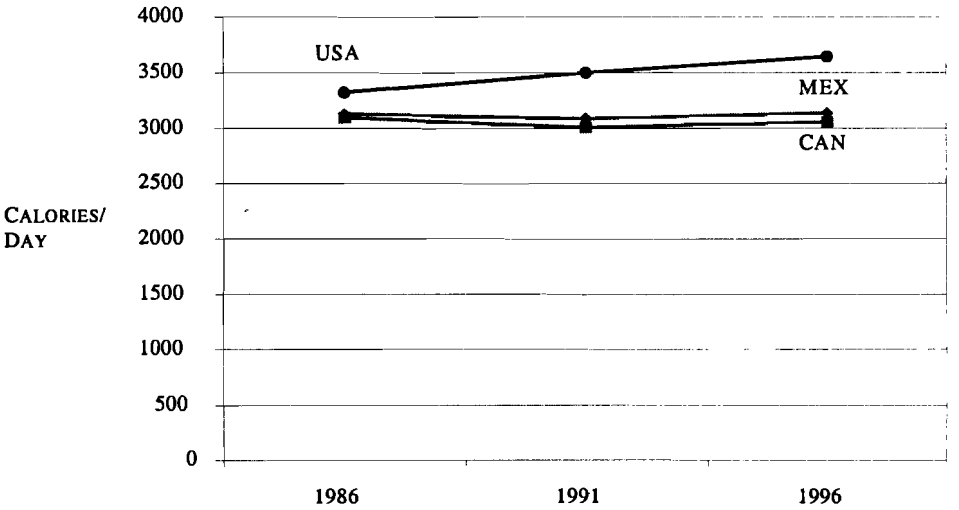

FIGURE 5

However, this increase in food supply does not translate into enough food for everyone. At the 1996 World Food Summit held in Rome, 186 countries agreed that between 800 million to one billion people do not get enough food to eat.[17] While developing countries produce over 50% of the world's food, the same countries consume only 40% of it.[18] Given this net flow of food from the populous south to the relatively less populated north, one can understand that there is a huge potential for increased food demand in developing countries and newly industrialized countries. Almost 80% of the world lives in countries whose national per capita daily calorie intake is less than 3000 calories.[19]

However, with approximately 20% of the world's population living in life-threatening poverty or being unable to get enough to eat on a daily basis, what portion of the developing world will be able to fully satisfy their food requirements

16. *Id.*

17. *See* H.E. Oscar Luigi Scalfaro, President of the Italian Republic (Nov. 13, 1996), *in* REPORT OF THE WORLD FOOD SUMMIT (Rome: Food & Agric. Org. of the U.N., 1996) <http://www.fao.org/wfs/final/rep-1-e.htm#Scalfaro>.

18. *See* Donald E. Buckingham, *A Recipe for Change: Towards an Integrated Approach to Food Under International Law*, 6 PACE INT'L. L. REV. 285, 288 (1994).

19. *See id.* at 287-88. More than eight countries around the world have daily per capita diets lower than the minimum survival standard suggested by the United Nations of 2000 calories. *See id.* at 288. The world mean is at 2700 calories with developed countries at 3415 calories. *See id.* at 287-88.

in the years to come? New markets for agricultural markets depend, in part on continued as well as new effective demand from growing populations, the majority of which are in developing countries.[20] National and international policy initiatives to create effective demand by the poorest people of the world would considerably improve prospects for increased trade in agricultural products.

B. *World Production of Agricultural Goods*

World-wide production of agricultural goods has increased almost 20% over the past decade.[21] Furthermore, world production has grown more rapidly over the last five years than the first five.[22]

WORLD-WIDE AGRICULTURE PRODUCTION WHERE BASELINE OF 100 IS THE PRODUCTION AVERAGE FOR THE YEARS 1989-91[23]

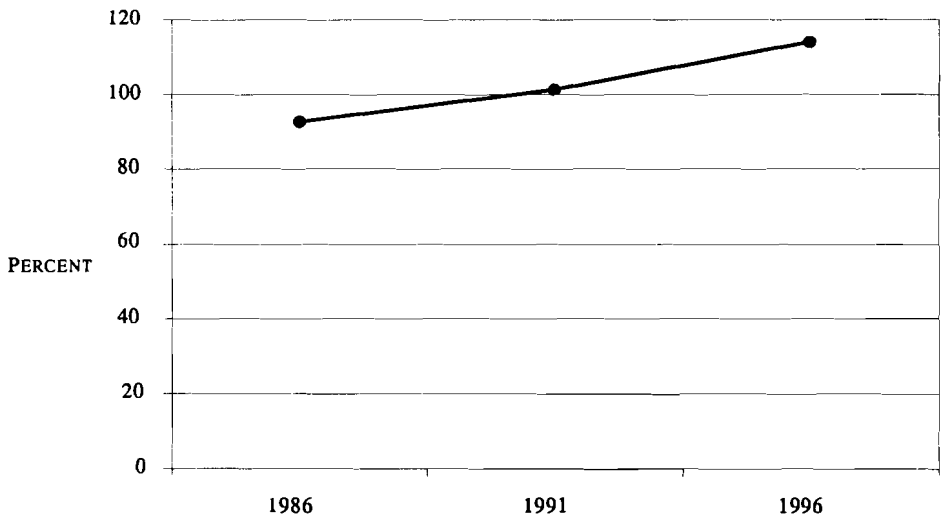

FIGURE 6

20. *Id. See also* ECONOMIC & POL'Y ANALYSIS DIRECTORATE, AGRICULTURE & AGRI-FOOD CANADA, THE INTERNATIONAL POLICY ENVIRONMENT FOR AGRICULTURAL TRADE NEGOTIATIONS 35 (1998).

21. Author's calculations from FAO statistics. *See* <http://apps.fao.org/lim500/nph-wrap.pl?Crops.Primary&Domain=PIN&servlet=1> (search for Country: WORLD+; Item: AGRICULTURE (PIN)+; Element: NET PIN base 89-91; Year: 1986, 1991, 1996) (last modified Feb. 17, 1999).

22. Author's calculations from FAO statistics. *See id.*

23. *Id.*

1. *Production and Export Trends for a Basket of Ten Major Commodities*

As one might expect, increased production and increased trade have also occurred over the past decade for each of ten major commodities.

a. *Wheat*

WORLD WHEAT PRODUCTION AND EXPORT TRENDS[24]

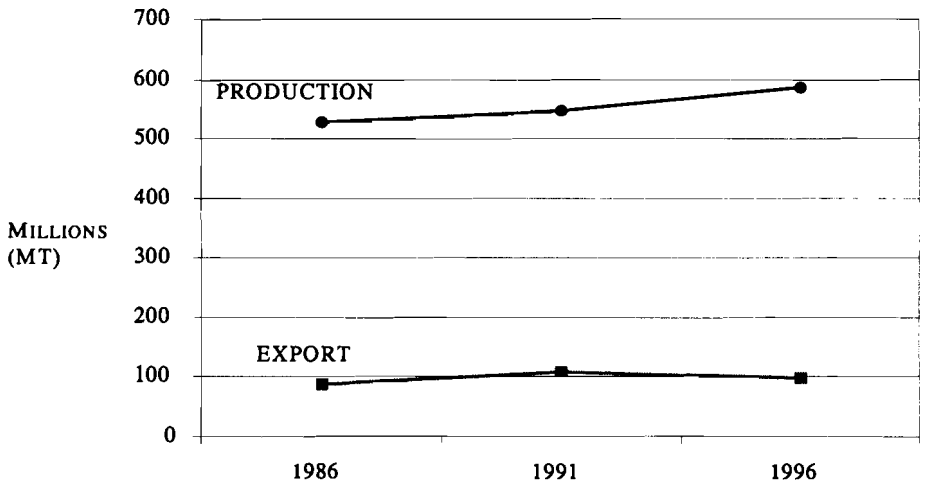

FIGURE 7

In the case of wheat, production has increased significantly, with exports remaining relatively constant over the past decade.

24. *Id.* (search for Country: WORLD+; Item: Wheat; Element: Production; Year: 1986, 1991, 1996); <http://apps.fao.org/lim500/nph-wrap.pl?Trade.CropsLivestockProducts&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Wheat; Element: Exports - Qty; Year: 1986, 1991, 1996).

b. *Coarse Grains*

WORLD COARSE GRAIN PRODUCTION AND EXPORT TRENDS[25]

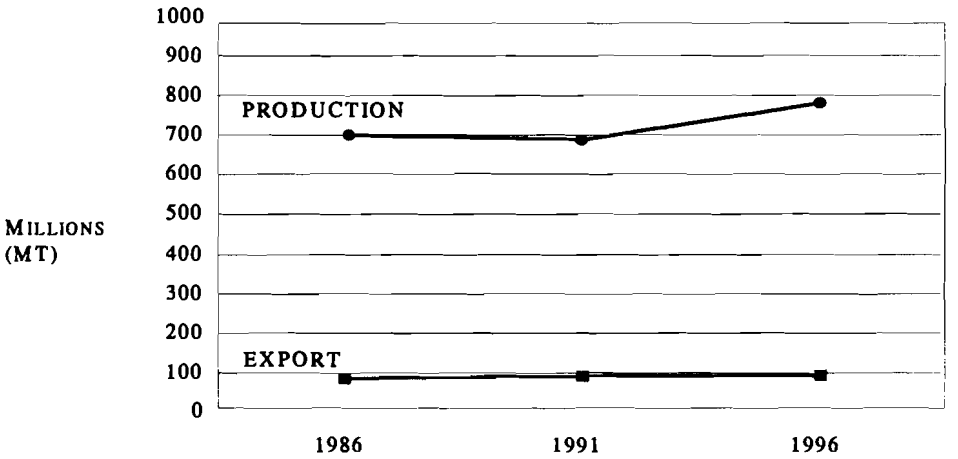

FIGURE 8

Like wheat, world coarse grain production has increased sharply in the last five years, while exports have remained constant.

25. <http://apps.fao.org//lim500/nph-wrap.pl?Production.Crops.Primary&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Barley, Maize, Oats; Element: PRODUCTION; Year: 1986, 1991, 1996) (last modified Apr. 22, 1999); <http://apps.fao.org/lim500/nph-wrap.pl?Trade.CropsLivestockProducts&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Barley, Maize, Oats; Element: Exports - Qty; Year: Barley, Maize, Oats) (last modified Mar. 29, 1999).

c. *Oilseeds*

WORLD OILSEED PRODUCTION AND EXPORT TRENDS[26]

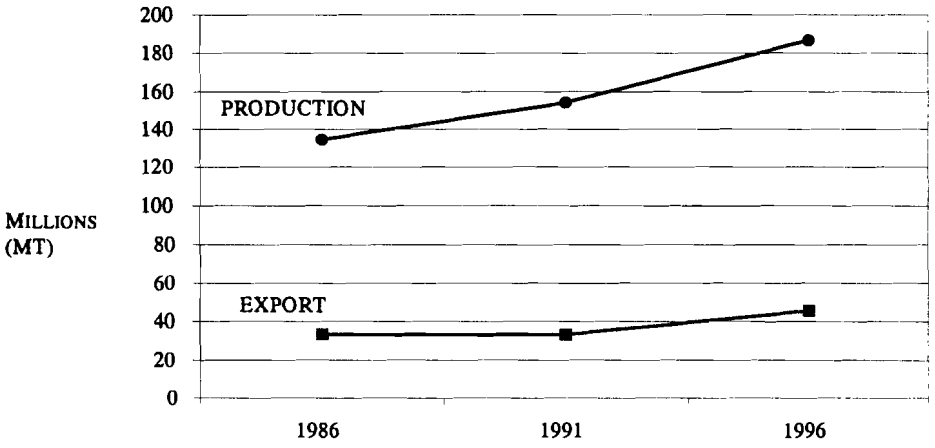

FIGURE 9

World oilseed production has increased dramatically over the past decade, with exports increasing more modestly.

26. <http://apps.fao.org/lim500/nph-wrap.pl?Trade.CropsLivestockProducts&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: OILSEEDS -22+; Element: Exports - Qty; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

d. *Cattle*

WORLD CATTLE PRODUCTION AND EXPORT TRENDS[27]

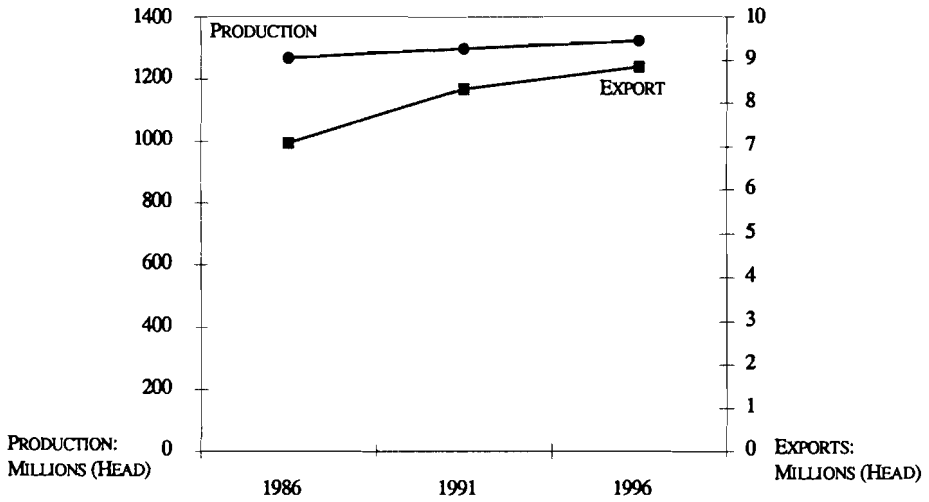

FIGURE 10

Cattle production has remained relatively stable over the past decade, while exports appear to have increased dramatically. Note the different scale for exports, millions of heads, compared to production, 100 millions of heads. Exports have steadily increased, but not dramatically so, over the past decade.

27. <http://apps.fao.org/lim500/nph-wrap.pl?Production.Livestock.Stocks&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Cattle; Element: Stocks; Year: 1986, 1991, 1996) (last modified Feb. 17, 1999); <http://apps.fao.org/lim500/nph-wrap.pl?Trade.LiveAnimals&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Cattle; Element: Exports - Qty; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

e. *Pigs*

WORLD PIG PRODUCTION AND EXPORT TRENDS[28]

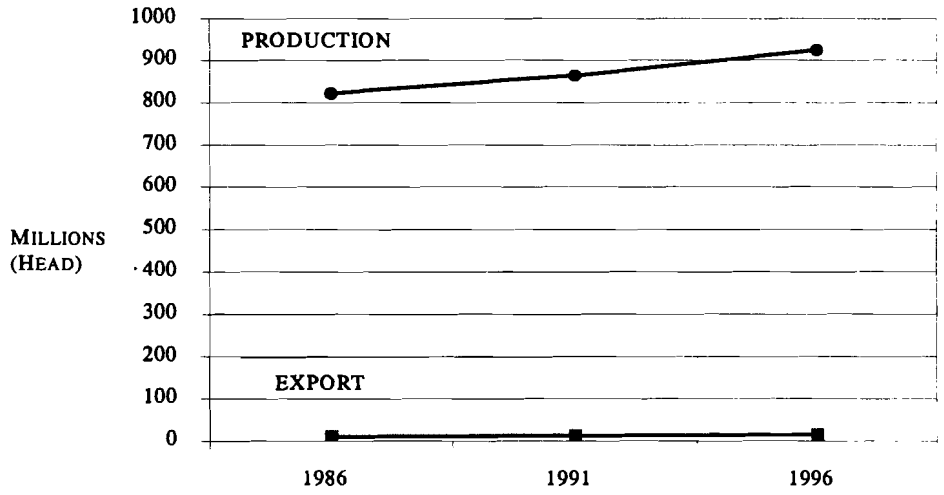

FIGURE 11

Pig production has witnessed a sharp increase in the past decade although exports have remained fairly constant.

28. <http://apps.fao.org/lim500/nph-wrap.pl?Production.Livestock.Stocks&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Pigs; Element: Stocks; Year: 1986, 1991, 1996) (last modified Feb. 17, 1999); <http://apps.fao.org/lim500/nph-wrap.pl?Trade.LiveAnimals&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Pigs; Element: Exports - Qty; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

f. *Chickens*

WORLD CHICKEN PRODUCTION AND EXPORT TRENDS[29]

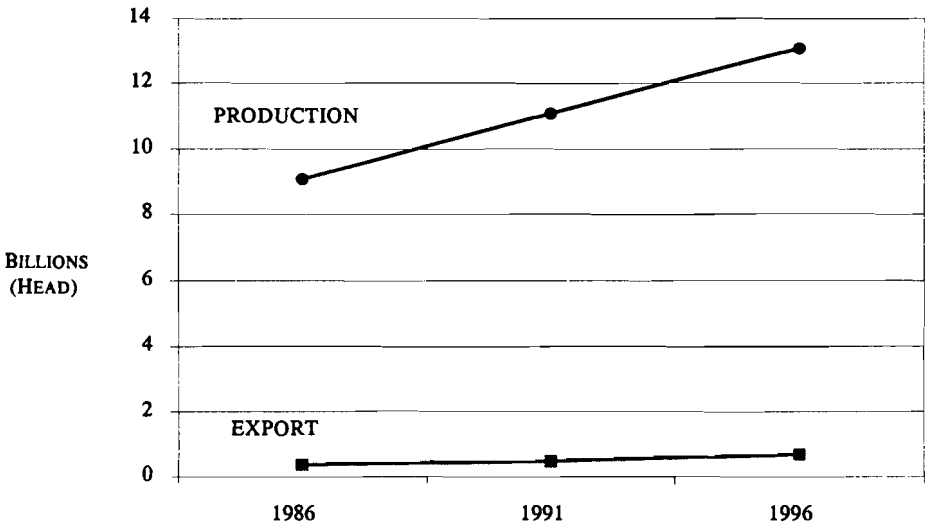

FIGURE 12

Chicken production has experienced a steep increase worldwide over the past ten years, while exports have continued a steady rise, the most dramatic amongst all meats.

29. <http://apps.fao.org/lim500/nph-wrap.pl?Production.Livestock.Stocks&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Chickens; Element: Stocks; Year: 1986, 1991, 1996) (last modified Feb. 17, 1999); <http://apps.fao.org/lim500/nph-wrap.pl?Trade.LiveAnimals&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Chickens; Element: Exports - Qty; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

g. *Milk and Milk Products*

WORLD MILK AND MILK PRODUCTS PRODUCTION AND EXPORT TRENDS[30]

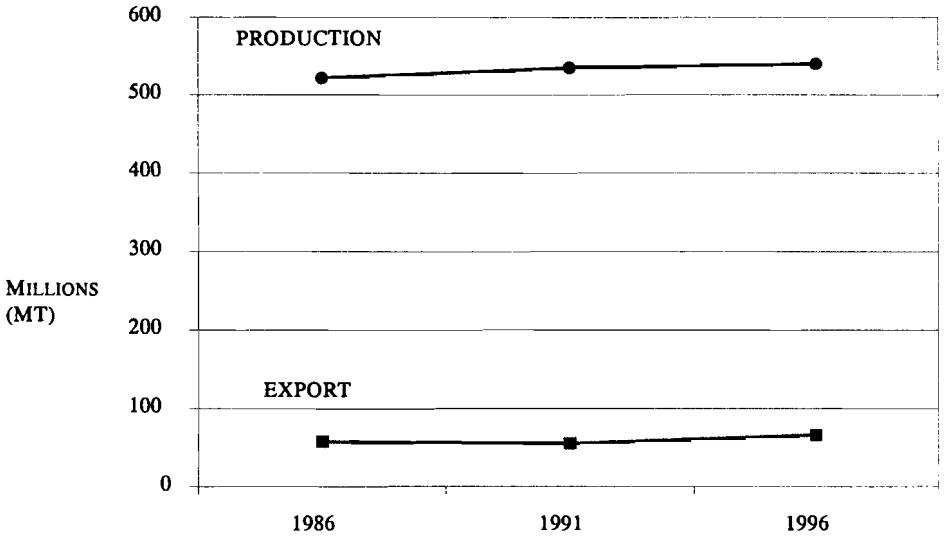

FIGURE 13

Milk production and exports have increased slightly between 1986 and 1996.

30. <http://apps.fao.org/lim500/nph-wrap.pl?FoodBalancesSheet&Domain=FoodBalanceSheet> (search for Country: World+; Item: -All-; Year: 1986, 1991, 1996) (last modified June 12, 1998).

h. *Rice*

WORLD RICE PRODUCTION AND EXPORT TRENDS[31]

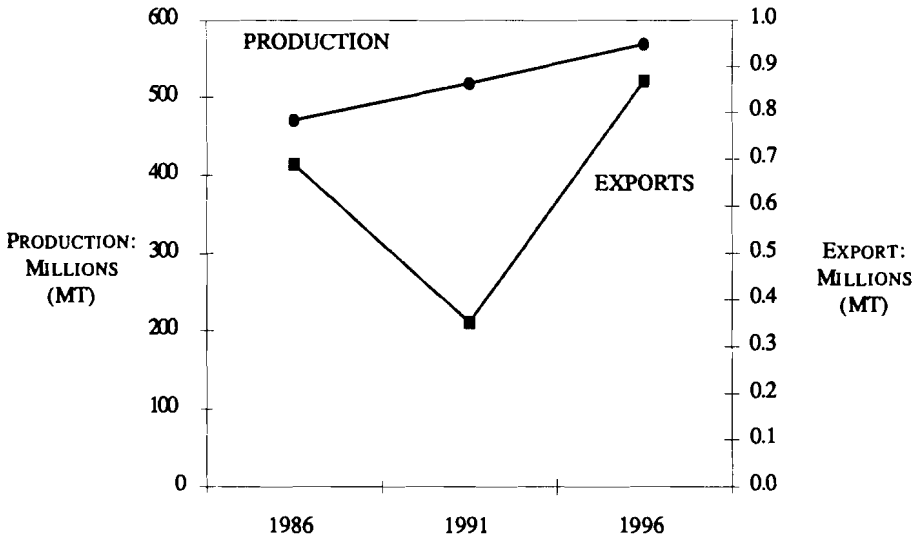

FIGURE 14

Rice production has increased steadily over the past ten years in review with exports growth relatively volatile and insignificant. Note the different scales for production (100 million mt) and exports (100,000 mt).

31. <http://apps.fao.org/lim500/nph-wrap.pl?Production.Crops.Primary&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Rice, Paddy; Element: Production; Year: 1986, 1991, 1996) (last modified Apr. 22, 1999); <http://apps.fao.org/lim500/nph-wrap.pl?Trade.CropsLivestockProducts&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Rice, Paddy; Element: Exports - Qty; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

i. *Fruits and Vegetables*

WORLD FRUIT AND VEGETABLE PRODUCTION AND EXPORT TRENDS[32]

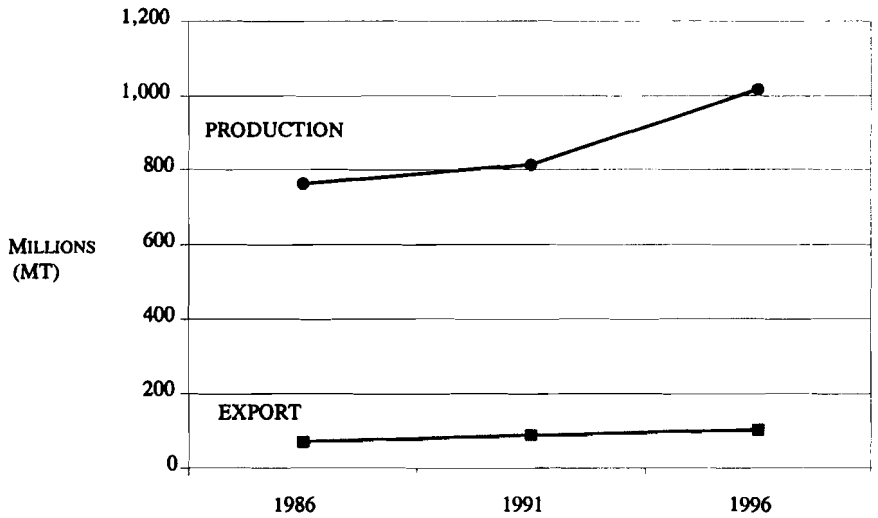

FIGURE 15

Fruit and vegetable production has made remarkable gains in the past decade although exports have been fairly constant.

32. <http://apps.fao.org/lim500/nph-wrap.pl?Production.Crops.Primary&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: FRUIT EXCL MELONS,TOTAL+, VEGETABLES+MELONS,TOTAL+; Element: Production; Year: 1986, 1991, 1996) (last modified Apr. 22, 1999); <http://apps.fao.org/lim500/nph-wrap.pl?Trade.CropsLivestockProducts&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: FRUITS + VEGETABLES - 05+; Element: Exports - Qty; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

j. *Sugar*

WORLD TOTAL SUGAR (RAW EQUIVALENT) PRODUCTION AND EXPORT TRENDS[33]

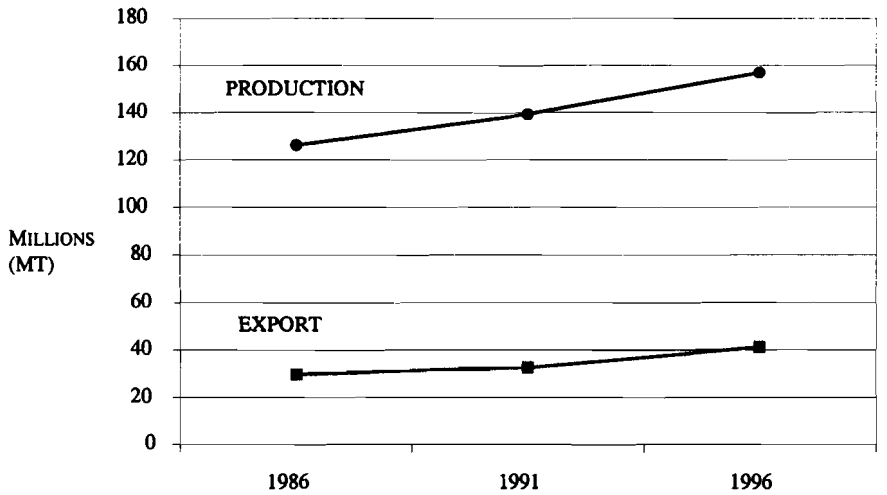

FIGURE 16

Finally, world production of sugar has increased sharply, as have exports.

2. *World Trends in Production and Exports*

Production trends show that while all ten commodities have shown gains, these gains were highest for chickens (44%), oilseeds (38%), fruits and vegetables (33%), sugar (24%), rice (21%), with more modest gains for the other five major commodities.[34] Of the ten commodities, some are more dependent on international markets than others with sugar topping the list (28% of 1996 production was traded) followed by oilseeds (24%), wheat (17%), milk and milk products (12%),

33. <http://apps.fao.org/lim500/nph-wrap.pl?CBD.CropsAndProducts&Domain=CBD&servlet=1> (search for Country: WORLD+; Item: Sugar, Total Raw Equiv; Element: Production Mt, Exports Mt; Year: 1986, 1991, 1996) (last modified June 12, 1998).

34. Author's calculations from FAO statistics. *See id.* (search for Country: WORLD+; Item: Fruit, Other & Products, Oilseeds, Other, Cake, Sugar Cane, Vegetables & Products, Wheat & Products; Element: Production Mt; Year: 1986, 1991, 1996) (last modified June 12, 1998); <http://apps.fao.org/lim500/nph-wrap.pl?Production.Livestock.Primary&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: Chicken Meat; Element: Production; Year: 1986, 1991, 1996).

and coarse grains (12%).[35] The superstars of the agricultural commodities, when it comes to most impressive gains in export growth, were chicken (79%), fruits and vegetables (47%), pigs (39%), sugar (39%), and oilseeds (36%).[36]

However, even in light of these impressive increases, trade in agricultural commodities continues to fall in relative importance to trade in other goods as Figure 18 shows.[37] In 1986, 10.7% of international goods traded were agricultural goods whereas a decade later, only 8.7% of goods traded were agricultural commodities.[38] Thus, the overall importance of trade in agricultural commodities appears to be in decline.

TOTAL MERCHANDISE TRADE AND AGRICULTURAL TRADE-EXPORT TRENDS[39]

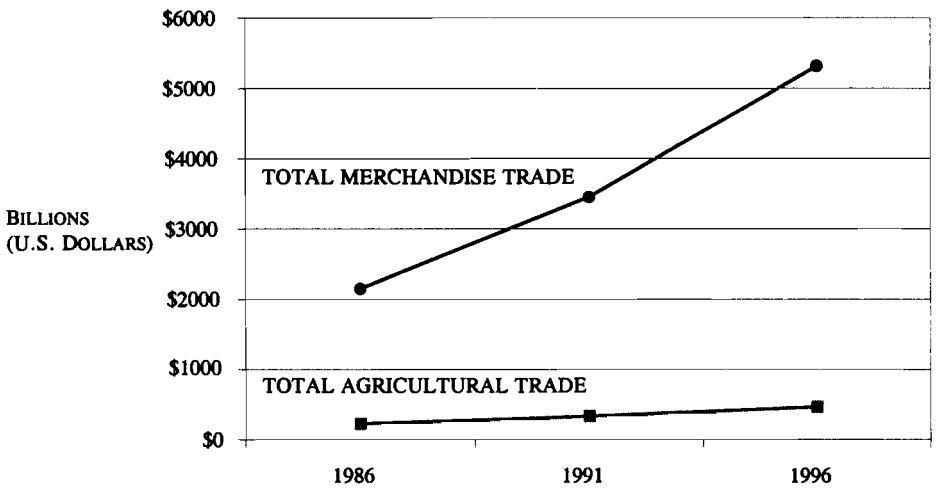

FIGURE 17

C. *Changes in Export Market Share—Selected Commodities*

Not only have there been important changes in the last decade with respect to production and export levels, there have also been significant fluctuations in international market sharing and prices. The next few figures illustrate the

35. Author's calculations from FAO statistics. *See id.*
36. Author's calculations from FAO statistics. *See id.*
37. Author's calculations from FAO statistics. *See id.*
38. Author's calculations from FAO statistics. *See id.*
39. <http://apps.fao.org/lim500/nph-wrap.pl?Trade.CropsLivestockProducts&Domain=SUA&servlet=1> (search for Country: WORLD+; Item: TOTAL MERCHANDISE TRADE+, AGRICULT.PRODUCTS,TOTAL+; Element: Exports - Val; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

magnitude of these changes for three commodities of particular importance to Western Canada, and perhaps to a slightly lesser extent, the United States and Mexico—wheat, cattle, and pigs.

1. *Wheat*

MARKET SHARE OF WHEAT EXPORTS FOR 1986 AND 1996[40]

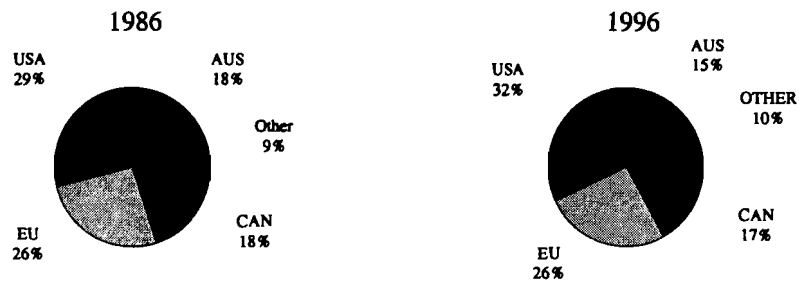

FIGURE 18

40. Author's calculations from FAO statistics. *See* <http://apps.fao.org/lim500/nph-wrap.pl?Trade.CropsLivestockProducts&Domain= SUA&servlet=1> (search for Country: Australia, Canada, EC (15)+, USA, WORLD+; Item: Wheat; Element: Exports - Qty; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

2. *Cattle*

MARKET SHARE OF CATTLE EXPORTS FOR 1986 AND 1996[41]

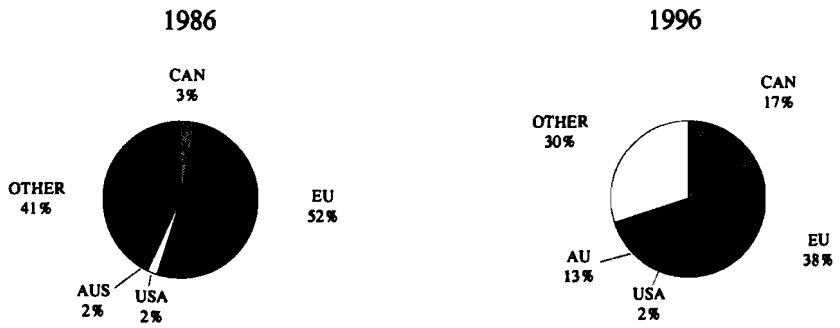

FIGURE 19

41. Author's calculations from FAO statistics. *See* <http://apps.fao.org/lim500/nph-wrap.pl?Trade.LiveAnimals&Domain=SUA&servlet =1> (search for Country: Australia, Canada, EC (15)+, USA, WORLD+; Item: Cattle; Element: Exports - Qty; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

3. *Pigs*

MARKET SHARE OF PIG EXPORTS FOR 1986 AND 1996[42]

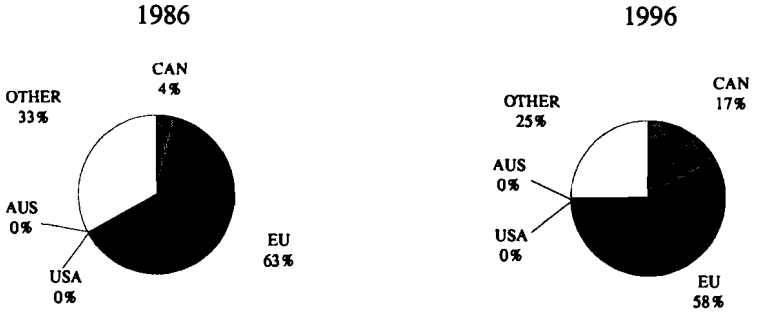

FIGURE 20

Interestingly, for each of three commodities, the United States has maintained its international market presence.[43] Canada, on the other hand, has lost on wheat markets but made significant gains in livestock trade, while the European Union has maintained its wheat share but seen its livestock share fall fairly dramatically.[44]

D. *The North American Market for Agricultural Products—Selected Commodities*

1. *NAFTA Production Trends*

Following world trends, most commodities produced in the North American market have enjoyed moderate production increases over the last decade, with some commodities showing considerable increases. Below is the graphic representation of these trends for the particular cases of wheat, cattle, and pigs. The United States, of course, continues to be the largest producer of all three commodities in the region, with Mexico the second largest producer for both cattle and pigs, and Canada the second largest producer for wheat in the NAFTA area.[45]

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42. Author's calculations from FAO statistics. *See* <http://apps.fao.org/lim500/nph-wrap.pl?Trade.LiveAnimals&Domain=SUA&servlet =1> (search for Country: Australia, Canada, EC (15)+, USA, WORLD+; Item: Pigs; Element: Exports - Qty; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

43. Author's calculations from FAO statistics. *See supra* notes 40-42.

44. Author's calculations from FAO statistics. *See supra* notes 46-52 and accompanying text.

45. Author's calculations from FAO statistics. *See id.*

a. *Wheat*

UNITED STATES, CANADA, AND MEXICO WHEAT PRODUCTION[46]

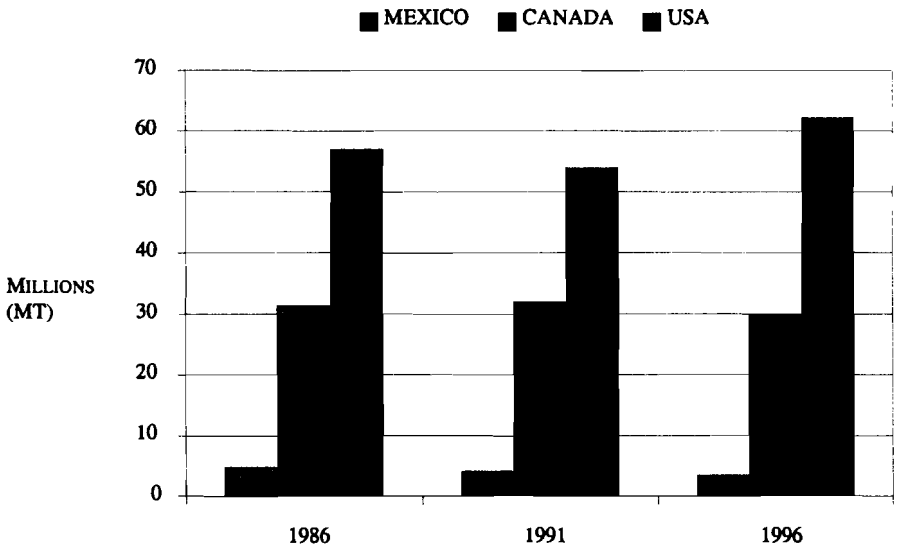

FIGURE 21

Over the past decade, wheat production has risen only in the United States (9%) while it has dropped in both Canada (-3%) and in Mexico (-40%).[47]

b. *Cattle*

NAFTA production trends for cattle have shown quite the opposite of wheat trends—with the United States and Mexico showing modest reductions (-2% and -13% respectively) with Canada increasing its production by a respectable 18%.[48]

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46. <http://apps.fao.org/lim500/nph-wrap.pl?Production.Crops.Primary&Domain=SUA&servlet=1> (search for Country: Canada, Mexico, USA; Item: Wheat; Element: Exports - Qty; Year: 1986, 1991, 1996) (last modified Mar. 29, 1999).

47. Author's calculations from FAO statistics. *See id.*

48. Author's calculations from FAO statistics. *See* <http://apps.fao.org/lim500/nph-wrap.pl?Production.Livestock.Stocks&Domain=SUA&servlet=1> (search for Country: Canada, Mexico, USA; Item: Cattle; Element: Stocks; Year: 1986, 1991, 1996) (last modified Feb. 17, 1999).

UNITED STATES, CANADA, AND MEXICO CATTLE PRODUCTION[49]

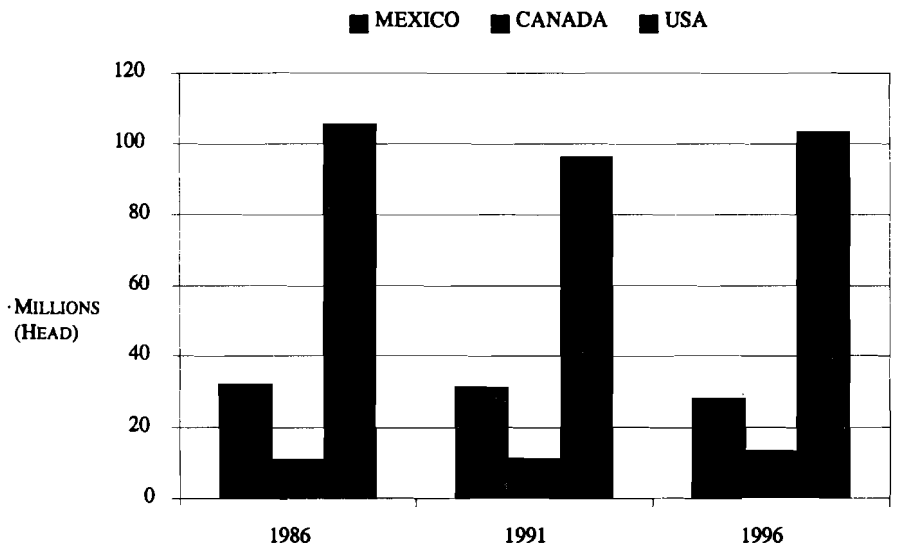

FIGURE 22

c. *Pigs*

With regards to pig production, both the United States and Canada have posted gains of more than 10% over the past decade, with Canada's increase in the order of 20%.[50] Mexico, on the other hand, posted a 22% reduction between 1986 and 1996.[51]

49. *Id.*

50. Author's calculations from FAO statistics. *See id.* (search for Country: Canada, Mexico, USA; Item: Pigs; Element: Stocks; Year: 1986, 1991, 1996) (last modified Feb. 17, 1999).

51. Author's calculations from FAO statistics. *See id.*

UNITED STATES, CANADA, AND MEXICO PIG PRODUCTION[52]

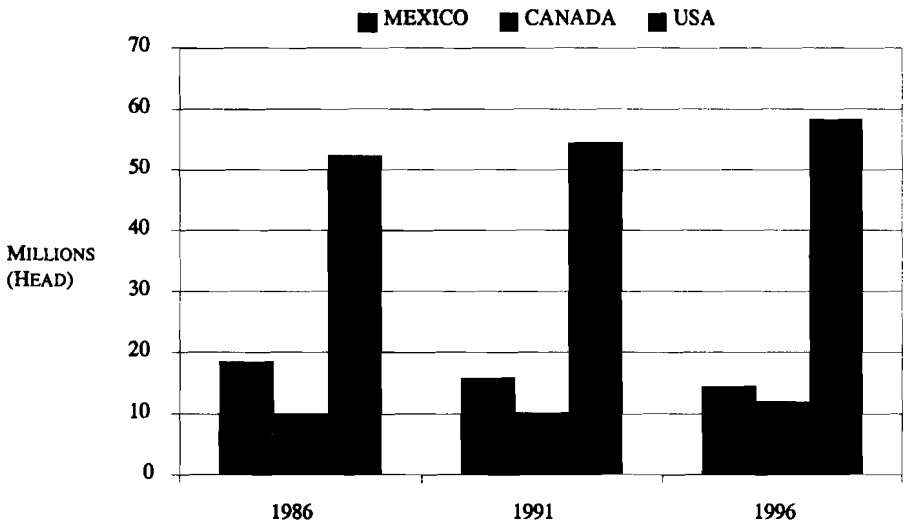

FIGURE 23

2. *Agricultural Trade Within the NAFTA Area*

Since 1989, Canada and the United States, and since 1994, Canada, the United States, and Mexico have enjoyed a more integrated market under the Canada-United States Free Trade Agreement (CUFTA)[53] and the North American Free Trade Agreement (NAFTA)[54] respectively. These relationships have lowered or eliminated tariffs and some non-tariff barriers which have in turn increased trade, including trade in agricultural products, amongst the three countries.[55]

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52. *Id.*

53. *See* Canada-United States: Free Trade Agreement, 27 I.L.M. 281, 293 (entered into force Jan. 1, 1989).

54. *See* Canada-Mexico-United States: North American Free Trade Agreement, 32 I.L.M. 289, 297 (Mar. 1993) [hereinafter NAFTA].

55. *See* Nathalie J. Chalifour & Donald Buckingham, *Counting Chickens Before They Hatch: New Hope or No Hope for Discipline in International Agricultural Trade*, *in* 32 THE CANADIAN YEARBOOK OF INTERNATIONAL LAW 111, 116 (1994).

Increases in intra-NAFTA trade in agricultural products since 1991 are dramatic as indicated by the following figures.

USA, CANADA, AND MEXICO EXPORTS TO NAFTA PARTNERS[56]

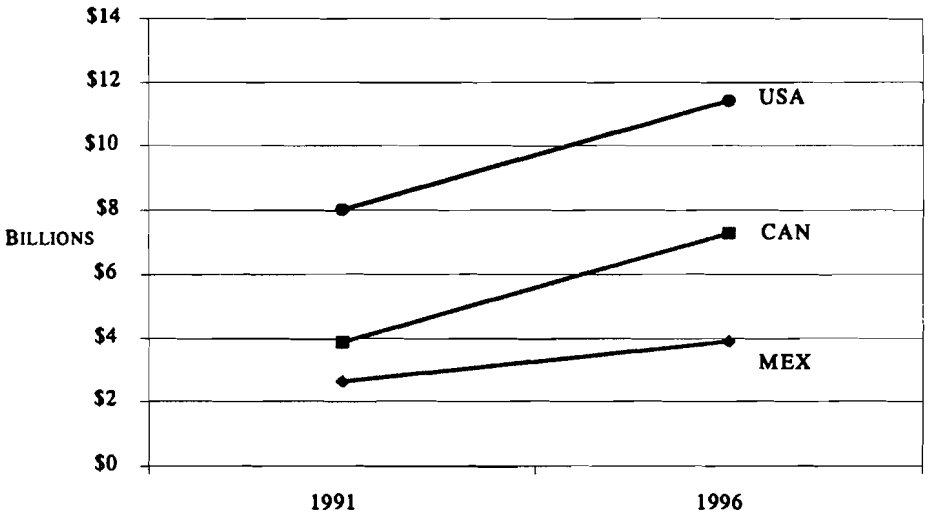

FIGURE 24

56. *See* PROMAR International, *U.S. Agricultural Export Experience with NAFTA Partners: NAFTA Market for the U.S.*, tbl. 3, tbl. 6 (visited Feb. 24, 1999) <http://www.fb.com/issues/analysis/nafta/NAFTA-market.html>.

USA, CANADA, AND MEXICO IMPORTS FROM NAFTA PARTNERS[57]

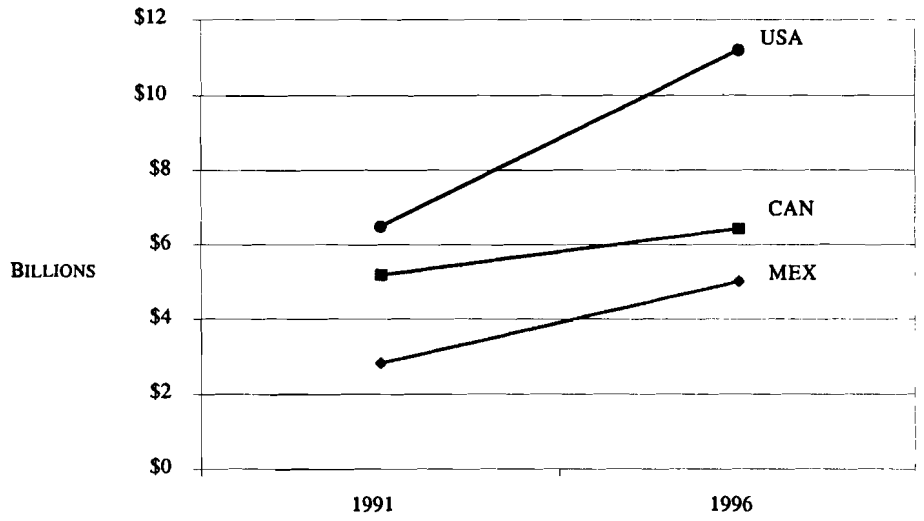

FIGURE 25

Agricultural exports from each country to its two NAFTA partners have dramatically increased over the past five years. Agricultural exports are up 88% for Canada, 47% for Mexico, and 42% for the United States—with those exports going primarily into Mexico, which has witnessed a 75% increase in imports, and to the United States, which has seen a 72% increase in imports, with Canada experiencing only a 24% increase in agricultural imports from NAFTA partners.[58] It is plausible to believe that at least some of these gains can be attributed to the existence of freer markets achieved through the NAFTA.

III. IMPLICATIONS ARISING FROM WORLD AND NAFTA PRODUCTION AND TRADE TRENDS FOR AGRICULTURAL PRODUCTS

So what is one to make of this avalanche of statistics? Agricultural production and exports are increasing world-wide, but one sees the particular magnitude of these increases in our own NAFTA states of Canada, the United States, and Mexico. Agricultural trade thus remains of primary importance to North American farmers.

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57. *See id.*
58. Author's calculations from U.S. Census Bureau statistics. *See id.*

But the rosy picture painted by the production and trade statistics somehow masks a barrage of issues that make newspaper headlines like "South Dakota blocks Canadian food trucks,"[59] "Canada files complaints over American trade actions,"[60] and "Border brawl bad news for Canadian farmers."[61]

A. *Pressures on Agricultural Trade*

Undoubtedly, production increases over the past decade correspond to an increase in world-wide demand, especially for commodities like meats and oilseeds. On the other hand, there is evidence that international markets for agricultural products are in for some rather heavy weather in the short term.[62]

1. *Falling Commodity Prices*

Commodity prices are coming under some strain. Figure 26 shows price trends over the past decade for wheat, cattle, and hogs.

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59. Heather Scoffield, *S. Dakota Blocks Canadian Food Trucks: Harsh Border Measures Have Nothing to Do With Safety & Are a Political Ploy, Minister Says*, GLOBE & MAIL, Sept. 17, 1998, at B5.

60. Barry Wilson, *Canada Files Complaints over American Trade Actions*, W. PRODUCER, Oct. 1, 1998, at 1.

61. Gerry Klein, *Border Brawl Bad News for Canadian Farmers*, SASK. STAR PHOENIX, Sept. 25, 1998, at A3.

62. *See* ECONOMIC & POL'Y ANALYSIS DIRECTORATE, *supra* note 21, at 40; Barry Wilson, *Europe Refuses to Give Up Export Subsidies*, W. PRODUCER, June 11, 1998, at 4.

SASKATCHEWAN SPRING WHEAT, CATTLE, AND HOG PRICES[63]

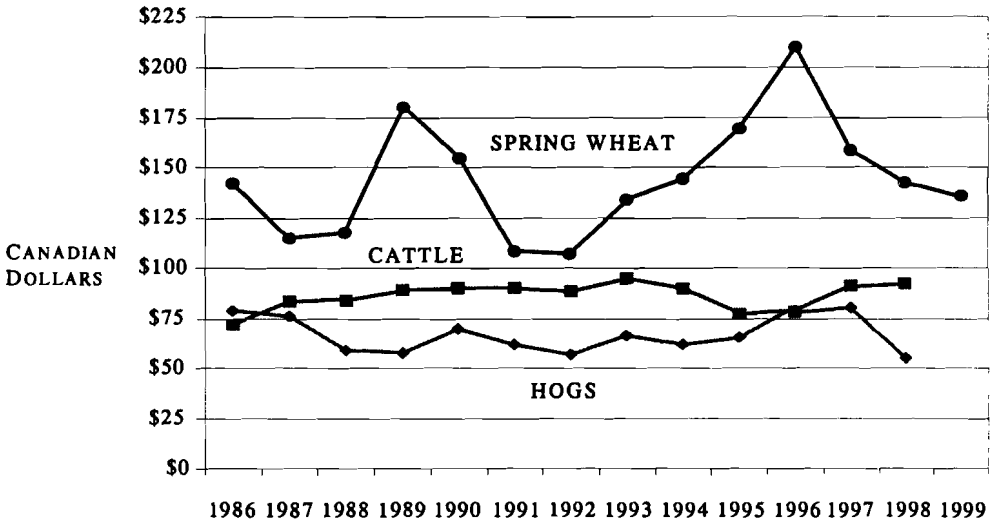

FIGURE 26

All these commodities have experienced major price fluctuations over the past ten to twelve years with the most significant variations for wheat. In addition, all three commodities appear to be on a downward swing. Price pressures are due to a number of factors. First, world production is increasing due to favorable weather conditions, better crop varieties, better crop protection, and increases in planted areas worldwide.[64] Second, countries continue to heavily subsidize agricultural production and exports.[65] Third, markets have disappeared in countries hit by financial crises.[66] Consumer purchasing power in Russia, Eastern

63. Sustainable Production Branch, Saskatchewan Agriculture and Food, Canadian Wheat Board Payments for No. 1 CWRS Wheat, Basis Saskatoon (on file with the *Drake Journal of Agricultural Law*) (final price per tonne using Saskatoon as the basis); Red Meat Section, Agriculture and Agri-Food Canada, Saskatchewan Prices from the Livestock Market Review (on file with the *Drake Journal of Agricultural Law*) (calculated average from the annual prices of slaughter cattle and feeder steers (800-900 pounds)); SPI Marketing Group, Saskatchewan Monthly Hog Prices (on file with the *Drake Journal of Agriculture of Law*) (annual average price of hogs based on dressed weight).

64. *See* William H. Meyers et al., *Medium-term FAPRI Outlook for World Agricultural Prices: Comparisons and Implications*, *in* WORLD AGRICULTURAL TRADE 25, 30 (Tülay Yildirim et al. eds., 1998).

65. *See* D. Gale Johnson, *Agricultural Trade: Future Issues*, *in* WORLD AGRICULTURAL TRADE 7, 10 (Tülay Yildirim et al. eds., 1998); Wilson, *supra* note 62, at 4.

66. *See* Johnson, *supra* note 65, at 12-13.

Europe, and the countries of South East Asia has been drastically reduced and thus food purchases in these countries have nose-dived.[67]

2. *Battling For Markets and Market Share*

Countries continue to fight for market share and market access, with the inevitable result of allegations of unfair competition by one country against another.[68] While international and regional rule-based trade agreements were designed, in part, to diffuse these situations, thus far it is unclear how successful agreements like the WTO and NAFTA have been in achieving this result. What can be said, however, is that agricultural product disputes have taken more than their share of judicial time at the dispute resolution bodies under the NAFTA and the GATT/WTO.[69]

At the WTO, since the inception of the "new and improved" dispute resolution mechanism has come on stream in 1995, 20% of the disputes that have been taken to the panel report stage[70] involved agricultural products. Of cases taken to the appeal level,[71] 33% of the cases have involved agricultural products.[72] When one compares these numbers with the fact that only about 10% of total world trade involves trade in agricultural products, disputes over agricultural products have been at least twice as common as one might expect them to be given their importance in international trade.

There are, of course, several other reasons that could account for agriculture's frequent appearance before WTO panels. These include agriculture's relatively recent arrival within the GATT disciplines of international trade; the high levels of protectionism still present in many developed countries; strong and effective lobbies of farm organizations which convince, cajole, and pressure

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67. *See* Heather Scoffield, *Turmoil Hinders Trade Agenda: Canada's Push for Regional Barrier-Free Zones Slowed by Economic Crisis in Asia, Latin America*, GLOBE & MAIL, Sept. 21, 1998, at B1.

68. *See generally* Heather Scoffield, *Politics Name of the Game in Border Battle on Hogs, Cattle*, GLOBE & MAIL, Sept. 23, 1998 (discussing the rising tension between Canada and the United States). One might also consider the steady stream of agricultural disputes before the World Trade Organization. *See generally Overview of the State-of-Play of WTO Disputes* (visited Feb. 24, 1999) <http://www.wto.org/wto/dispute/bulletin.htm> (summarizing agricultural disputes before the World Trade Organization).

69. *See* Chalifour & Buckingham, *supra* note 55, at 112.

70. *See Overview of State-of-Play of WTO Disputes*, *supra* note 68. From January 1, 1995 to August 1, 1998, there have been twenty-nine cases that have resulted in panel reports. *See id.*

71. *See id.* From January 1, 1995 to August 1, 1998, there have been eighteen cases that have resulted in appeal reports. *See id.*

72. *See id.*

national governments to take complaints to the WTO panel dispute mechanism.[73] Furthermore, the uneasy tension between trade, the environment, food health and safety standards, and protectionism undeniably accounts for some of the WTO disputes concerning trade in agricultural products.[74]

Americans and Europeans have been the most frequent users of the WTO dispute resolution mechanism for resolving agricultural disputes, although Canada and Brazil are close behind.[75] Of the six agricultural products cases resulting in a panel decision, each of which was appealed,[76] the EU or the United States were involved in all but one of them. If one looks at active panels, seven of the nineteen are examining measures affecting trade in agricultural products.[77]

B. *North American Trends*

1. *Juridical Dispute Resolution*

When one looks at the NAFTA trading area, it is interesting to note that NAFTA countries have been active in dispute resolution under both the WTO and the NAFTA. As discussed above, the United States is among the most active users of WTO dispute resolution for agricultural trade disputes, but Canada and Mexico are resorting to the WTO process as well. What is perhaps more interesting is that NAFTA members are not shy about using the WTO process to resolve their

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73. *See* Johnson, *supra* note 65, at 9.

74. *See* Donald E. Buckingham, *Does the World Trade Organization Care About Ecosystem Health? The Case of Trade in Agricultural Products*, 4 ECOSYSTEM HEALTH 92, 99–102 (1998).

75. *See Overview of State-of-Play of WTO Disputes*, *supra* note 68.

76. *See id.* The case subject, case number, complaintant(c), and respondent(r) are as follows: Measures Affecting Desiccated Coconut (WT/DS22, Philippines(c)/Brazil(r)); Regime for the Importation, Sale and Distribution of Bananas (WT/DS27, Ecuador, Guatemala, Honduras, Mexico, United States(c)/European Communities(r)); Patent Protection for Pharmaceutical and Agricultural Chemical Products (WT/DS50, United States(c)/India(r)); Measures Affecting Meat and Meat Products (Hormones) (WT/DS26 and WT/DS48, United States(c for 26) Canada(c for 48)/European Communities(r)); Measures Affecting Importation of Certain Poultry Products (WT/DS69, Brazil(c)/European Communities(r)). *See id.*

77. *See id.* The case subject, case number, complaintant(c), and respondent(r) are as follows: Taxes on Alcoholic Beverages (WT/DS87/1 and WT/DS110/1, European Communities(c)/ Chile(r); Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products (WT/DS90/1, United States(c), India(r)); Measures Affecting Butter Products (WT/DS72, New Zealand(c)/European Communities(r)); Measures Affecting the Importation of Milk and the Exportation of Dairy Products (WT/DS103/1 and WT/DS113/1, United States and New Zealand(c)/ Canada(r);Definitive Safeguard Measure on Imports of Certain Dairy Products, European Communities(c)/Korea(r); Anti-Dumping Investigation of High-Fructose Corn Syrup (HFCS) from the United States (WT/DS132, United States(c)/Mexico(r)); and Regime for the Importation, Sale and Distribution of Bananas (WT/DS27, Ecuador, Guatemala, Honduras, Mexico, United States(c)/European Communities(r)). *See id.*

disputes with each other, rather than resorting to the NAFTA dispute resolution mechanisms. While the current US/Canada dispute concerning *Measures Affecting the Importation of Milk and the Exportation of Dairy Products*[78] might have been able to be framed as a Chapter 20 NAFTA dispute,[79] the United States chose to proceed under the WTO. Likewise, the United States chose to proceed under the WTO dispute resolution mechanism in its current consultation between the United States and Mexico concerning the *Anti-Dumping Investigation of High-Fructose Corn Syrup (HFCS) from the United States*, even though it may have been possible to have proceeded under a Chapter 19 NAFTA binational panel.[80]

The United States choice to proceed in both of these cases at the WTO rather than the NAFTA, was no doubt premised on a number of criteria. One might speculate as to whether one of those factors was the United States' lack of confidence in the NAFTA dispute settlement process given the outcome in the only NAFTA Chapter 20 case to date.[81] In that case, which dealt with the appropriateness of certain tariffs for agricultural products, the NAFTA panel concluded that Canadian in-quota tariffs need not be reduced or eliminated as per the NAFTA, but instead remained a protected but changed feature of pre-WTO permitted non-tariff barriers.[82]

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78. WT/DS103/1. The government of New Zealand has launched a similar complaint against Canada WT/DS113/1. *See Overview of State-of-Play of WTO Disputes*, *supra* note 68.

79. NAFTA, *supra* note 54, at 395-98.

80. Under NAFTA's Chapter 19, NAFTA partners can choose judicial review of anti-dumping and countervailing determinations before a binational panel rather than a national court. *See id.* at 386-87. These decisions can ultimately be reviewed by a higher body called the Extraordinary Challenge Committee. *See id.* at 387. For a discussion of the evolving practice of the latter, see Donald M. McRae, *The Emerging Appellate Jurisdiction in International Trade Law*, *in* FOSTERING COMPLIANCE IN INTERNATIONAL LAW 23, 23-25 (1996).

81. *See* North American Free Trade Agreement Arbitral Panel Established Pursuant to Article 2008, Tariffs Applied by Canada to Certain U.S. - Origin Agricultural Products 18 (1996) (on file with Canadian Documents Depository).

82. *See* Dale E. McNeil, *The NAFTA Panel Decision on Canadian Tariff-Rate Quotas: Imagining a Tariffying Bargain*, 22 YALE J. INT'L. L. 345, 378 (1997).

2. *Political Saber-Rattling*

With, or in fact because of, increasing production and intra-block trade in North American agricultural products, there appears to be an increase in political tensions amongst Canada, the United States, and Mexico when it comes to agricultural trade.

A number of issues continue to be hot spots for North American agricultural trade. The Canadian pricing of milk and milk products,[83] United States sugar import laws,[84] Canada's use of state trading enterprises especially for grain marketing,[85] and the transborder trade of livestock and meat products[86] are but a few.

Yet underlying these specific commodity-based tensions are ideological differences amongst the states as to the appropriate role of the state in agriculture. State trading enterprises like the Canadian Wheat Board and the Canadian Dairy Commission are largely revered in Canada and yet seen as unfair traders in the United States.[87] The fairness and use of long-term export credits are not yet resolved.[88] Both Canada and the United States jealously guard the way in which their food safety and inspection systems operate.[89]

Some of these tensions perhaps relate to political knee-jerk reactions to dissatisfaction from farm constituencies that see imports threatening traditional markets. Witness the recent tensions in northern midwest states over Canadian imports of hard spring wheat, durum, and livestock.[90] Other tensions are the result of long-term changes in trade flows combined with short-term changes caused by a lower Canadian dollar and increased consumer demand in the United States. At any rate, most of these issues, broadly defined, will be on the table during the next

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83. *See Overview of State-of-Play of WTO Disputes*, *supra* note 68 (WTO disputes WT/DS103/1 and WT/DS113/1).

84. *See Mexico, U.S. Can't Settle Sugar Spat*, FIN. POST (Toronto), Mar. 17, 1998, at 16.

85. *See* Mel Annand & Donald E. Buckingham, *State Trading Exporters and the World Trade Organization: What are the Rules?*, *in* WORLD AGRICULTURAL TRADE 327, 339 (Tülay Yildirim et al. eds., 1998).

86. *See* Linda M. Young, Moving Toward a Single Market Is Hard: Trade Tensions in the Canadian-U.S. Cattle and Beef Markets, Presentation Before Agriculture, Law and Environment: A Conference Examining the Legal Effects of Internationalization 1 (Nov. 5-7, 1998) (unpublished manuscript, on file with author).

87. *See* Mel Annand, The WTO Regulation of State Trading Exporters 112-14 (1998) (unpublished Master of Laws thesis, University of Saskatchewan) (on file with the University of Saskatchewan Libraries).

88. *See* J.-G. Castel et al., THE CANADIAN LAW AND PRACTICE OF INTERNATIONAL TRADE 664 (2d ed. 1997).

89. *See* Young, *supra* note 86, at 11-14.

90. *See* Wilson, *supra* note 59, at 1; Scoffield, *supra* note 60, at B5.

round of WTO negotiations to review the operation of the WTO Agreement on Agriculture.[91] These negotiations are set to begin in late 1999 in Seattle.

IV. CONCLUSION

World production trends, and particularly those in the North American trading block, probably means good news and bad news for agricultural lawyers, depending on one's type of practice, the clientele, and geographic location.

A. *The Good News*

The good news is that the ever-increasing North American agricultural production should result in greater activity and farm wealth, and everything that goes with it—more capital purchases, more marketing contracts, and more financing agreements for expanded agricultural operations—all of which should lead to greater consumption of legal services by the agricultural community.

Therefore, a private agricultural lawyer with a large farm clientele, or one with a few large agribusiness clients, should enjoy a brisk business over the short-to-medium term, absent any other factors.

B. *The Bad News*

However, the statistics already reviewed, indicate that the picture is not quite that simple. While international agriculture and trade are undeniably increasing, there are a number of indicators which might counteract a conclusion that this trend, alone, will make the agricultural sector better off and bigger consumers of legal services.

First, there are a number of factors that currently seem to be driving down international prices for commodities. These have been listed before as international political and financial turbulence causing market instability, loss of import purchasing power in food importing states, and increasing subsidization of international sales. Lower prices means lower farm incomes and perhaps a lower demand for legal services.

Second, free trade in agricultural products is still a long way off. Any countries that believe they enjoy a production advantage in any number of agricultural products will still have a long wait to see the kind of market access that would be necessary for them to reap the benefits of this advantage. While there are

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91. Canada has identified most of these issues as important ones for discussion in Agriculture Canada's *Public Discussion Papers on WTO Agriculture Negotiations* (Dec. 12, 1997) (unpublished, on file with author).

clear prospects for renewed negotiations for lowering agricultural trade barriers in future multilateral talks, under the WTO's Agreement on Agriculture, and in regional trade talks like the Free Trade Area of the Americas initiative, the enthusiasm for freer trade may be waning, a trend which would negatively impact hopes for freer trade in agricultural products.[92]

Therefore, farm revenues may hold steady or even decline rather than increase in the short-or-medium term, thus calling into question whether there will be any increase in private agricultural law transactions and new work for agricultural lawyers.

C. *The Silver Lining*

Is there a silver lining in this picture? Business will be booming if you are a trade lawyer. Increasingly, it may not be just government departments with responsibility to monitor issues of market access and fair competitive practices who will employ trade and agricultural lawyers. Increasingly, farm groups and agribusiness will be in need of ongoing legal services to monitor international market trends and trade flows. When irregularities surface, lawyers will be required to understand and interpret the international legal environment and how it works so as to be able to articulate agricultural concerns and claims to home governments or even to foreign ones.

The bucolic picture of the rural practitioner, who needs worry little about international markets and intercontinental agricultural practices, is probably no longer realistic. New generations of agricultural lawyers would do well to include in their stock in trade, a generous helping of international trade law principles as well as the international aspects of private agricultural law. Agriculture is booming worldwide with significant increases in production and exports for all the major food commodities. But there are storm clouds too! Yet, even with these clouds of trade tensions, international instability, and agricultural price volatility, there are new, exciting and lucrative opportunities for agricultural lawyers to explore.

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92. *See* Scoffield, *supra* note 68, at B1.