Federico Caffè Centre Research Report n. 5/2003

Barley and Malt in the North American Free Trade Agreement

By

Rita Schwentesius Rindermann*
Jorge Aguilar Ávila**
Manuel Ángel Gómez Cruz***

* Director of CIESTAAM
** Doctoral student at CIESTAAM, member of PIAI
*** Coordinator of PIAI-CIESTAAM

Correspondence address:
E-mail: rsr@avantel.net
CIESTAM, Chapingo University
Tel/Fax.: 01(595)952-1613

Introduction

The king of Mexico's agro-food exports is **beer**. Nearly a billion dollars, or 12% of the foreign currency generated by the agro-food sector, is obtained through beer sales to other countries. Nevertheless, any real benefit for the country is minimal, and it is tending to decrease even more. First of all, the industry is being reduced to a duopoly of companies controlled by transnational capital: Grupo Modelo,[1] 51% of which is owned by the US Corporation Anheuser-Busch,[2] and FEMSA,[3] 30% of which is owned by the Canadian corporation Labatt.[4] A number of studies conducted by US researchers indicate that policies promoting trade liberalization and the Free Trade Agreements have led to a wave of mergers and acquisitions in the beer-producing sector (Table 1), and neither primary producers of malting barley or consumers are benefiting.[5]

Secondly, "Mexican" beer is produced less and less with Mexican raw materials. By 1998 more than 50% of the apparent national consumption of inputs equivalent to barley[6] was imported, with the latter being the primary raw material used in producing beer. In particular there is a close relationship between the beginning of the exporting of beer and the importing of malt in the 1980s. Only due to the intervention by the rain god Tláloc, who condemned Mexico's trade partners to drought, was this tendency reversed beginning in the year 2001, serving to refocus the industry on national production.

The purpose of this document is to propose trade and development-promoting policies that will benefit primary producers and consumers, without signifying a loss in profits for national and transnational industrial capital. We will first analyze the modalities and details of NAFTA negotiations; and then review compliance with what was negotiated and the trade flows between the three countries resulting from NAFTA; and

---

1 Grupo Modelo, http://www.gmodelo.com/

2 Anheuser-Busch, http://www.anheuser-busch.com/

3 FEMSA, http://www.femsa.com/

4 Labatt, http://www.labatt.com/enhanced/index_2.html

5 Buschena, D.E., R.S. Gray and E. Severson, *Changing Structures in the Barley Production and Malting Industries of the United States and Canada*, Policy Issues Paper No. 8, October 1998, http://www.staff.ncl.ac.uk/david.harvey/AEF 372/Addi- tions/Maltbarley.pdf; D.E. Buschena, and R.S. Gray, *Trade Liberalization and International Merger in Cournot Industries*: *The Case of Barley Malting in North America*, paper presented at the 1998 AAEA Annual Conference, Salt Lake City, Utah, USA, p. 15.

6 The type of barley required for producing beer is malting barley, which is of a better quality than feed barley, primarily due to its lower protein content (maximum of 11.5%, while feed barley is 14%). Protein affects how transparent the beer will be, and it depends on the application of nitrogen to the barley plants (nitrogen turns into protein in the plants), and this is important for all crops in order to achieve good yields. In other words, there is a conflict for producers between quality and yield, and consequently, the industry **should** reward quality by paying a profitable price to producers.

then end with a questioning of this Agreement and some proposals for new policy schemes.

Table 1. North America: Beer companies and their level of participation in the market (%)

EE.UU.		Canadá		México	
Anheuser Busch	45	Molson	55	GModelo-Anheuser Busch	62
Miller	22	Labatt	33	FEMSA-Labatt	36
Coors	10				
Stroh	8				
Total	85		88		98

Source: Buschena, D.E. , Gray, R.S and E. Severson, *Changing Structures in the Barley Production and Malting Industries of the United States and Canada*. Policy Issues Paper No. 8, October 1998, http://www.staff.ncl.ac.uk/david.harvey/AEF372/Additions/Maltbarley.pdf, pp. 10 y 11; http://www. femsa. com/qsomos_sub.asp? sub_id=cerveza y http://www.gmodelo.com.mx/espanol/flash/ Inversionistas/informe_ anual/informe_ anual.html

Table 2. Mexico: Negotiated reduction of duties for barley-malt in NAFTA

	Barley	*Malt*
Reduction of tariffs	C (10 years) Uruguay-type	C (10 years) Uruguay-type
Ad Valorem Tariff	128%	175%
Specific tariff	US$155/t	US$212/t
Additional quota:		
United States	120,000, increasing 5% each year	
Canada	30,000, increasing 5% each year	

Source: SECOFI, 1994, *Tratado de Libre Comercio de América del Norte. Fracciones Arancelarias y Plazos de Desgravación*, Porrúa publishers, first edition, pp. 70, 80, 83-84.

Table 3. Mexico: Scheme for reduction of tariffs for barley-malt from the United States and Canada

	Barley (1003.00.02 and 1003.00.99)		**Malt (1107.10.01 not roasted y 1107.20.01 roasted)**	
	% Ad valorem	US$/t	*% Ad valorem*	US$/t
1993	128.0	155	175.0	212
1994	122.8	148	168.0	203
1995	117.7	142	161.0	195
1996	112.6	136	154.0	186
1997	107.5	130	147.0	178
1998	102.4	124	140.0	169
1999	97.2	117	133.0	161
2000	72.9	88	99.7	120
2001	48.6	58	66.5	80
2002	24.3	29	33.2	40
2003	Free	Free	Free	Free

Source: SECOFI, 1994, Tratado de Libre Comercio de América del Norte. Fracciones Arancelarias y Plazos de Desgravación, Ed. Porrúa, First Edition, pp. 70, 80, 83 y 84.

Negotiating with respect to barley-malt in NAFTA

Before NAFTA, barley was subject to a requirement of prior permission for importation, and for many years that permission was handled by the semi-official National Popular Subsistence Company (Compañía Nacional de Subsistencias Populares—CONASUPO), a company finally liquidated by pressures imposed by the United States in NAFTA and due to the corruption of the government officials in charge of the company. Given the differences in the productivity and prices characterizing the three trade partners, barley received special treatment in the negotiations and was one of the best negotiated products in NAFTA. It was considered part of a chain together with malt. Furthermore a protection scheme was established to continue until the end of 2002 through a tariff quota, and the quota was increased based on an equivalence between barley and malt of 1 to 0.7.[7] The tariff beyond the quota was established very high, and a Uruguay Round-type reduction in duties was proposed, or in other words, a gradual reduction over the first six years.

The minimum quota was 120,000 tons for the United States, and 30,000 for Canada, and an annual increase of 5% for each country was accepted.

Table 2 contains a summary of the negotiated scheme for the reduction of duties, and in Table 3 and Figure 1 the process of tariff reduction is indicated. It is worth clarifying here that the information presented is only of historic importance, and perhaps it will serve as a reference for a possible renegotiation.

Generally, negotiators used statistical information on average trade flows from 1989 to 1991 as the basis for establishing import quotas. In the case of barley-malt, the basis for granting the United States a quota of 120,000 tons for export to Mexico is not completely clear, given a difference of approximately 30% in the statistics registered in the two countries, as illustrated in Figure 2. In other words, during the three years considered, a smaller amount of the product consistently entered Mexico than the amount the United States reported it had sent. In the end, Mexican negotiators accepted a quota amount above that which was reported in Mexican statistics, and consequently, more than 20% of national consumption became dependent on imports, thus sacrificing national sovereignty and with the awareness that such a high percentage would mean losing control over domestic prices.

Despite the protection schemes established —that were relatively favorable for Mexico— the negotiation was not appropriate for Mexican malting barley producers, in at least two aspects:

[7] The relation was later changed to: 1 to 0.75.

Minimum duty-free import quotas were negotiated instead of **maximum** import quotas, leaving open the possibility of increasing the import levels each year. In practice, this essentially gave the beer industry and the corresponding government offices (since 2000, the Department of the Economy) free reign in authorizing quotas, and they did so without any guarantee of protection for barley producers.

The negotiation of a ten-year period for eliminating trade protections was totally unfounded. A document published by the Department of Agriculture in 1993,[8] after the signing of NAFTA, emphasizes the level of technological backwardness of Mexican agriculture in relation to its trade partners, however it does not present any type of action plan to reach a point of leveling out within a period of ten years.

The case of barley is especially dramatic, because this grain remained outside the assistance granted to grain producers through Procampo during the 1993 fall-winter cycle and the 1994 spring-summer cycle, although it had been considered in an original version of this subsidy program for 1993.[9] Only after protest marches and the closing down of highways —in other words, political pressure— was barley included in the Procampo scheme. Nevertheless, to date it is excluded from trade assistance from Assistance and Services for Agricultural Commercialization (*Apoyos y Servicios a la Comercialización Agropecuaria*—ACERCA).[10]

These aspects are additional indicators of the lack of vision characterizing those responsible for agricultural policy in Mexico. Instead of promoting a grain that has export potential and instead of positioning Mexico as a country that supplies malting barley, malt and beer to the international market, those responsible have chosen to damage the first link of the chain, break the chain's integrity, favor foreign dependency and give up national sovereignty.

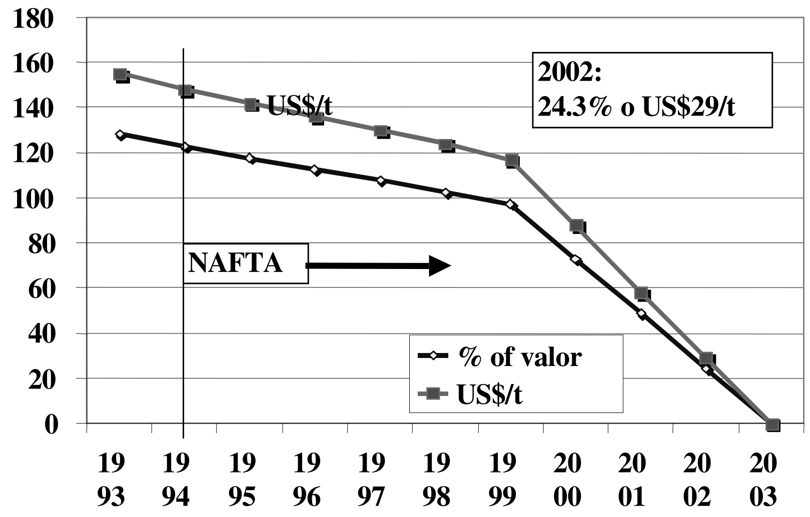
---

8 Secretaría de Agricultura y Recursos Hidráulicos, 1993, *El sector agropecuario en las negociaciones del Tratado de Libre Comercio Estados Unidos – México – Canadá*, Mexico, 149 p.

9 SARH, Dirección General de Política Agrícola, 1993, *PROCAMPO. Vamos al grano para progresar,* Mexico City, PROCASG.DOC – 09/26/93 05:58 PM, 17 A.

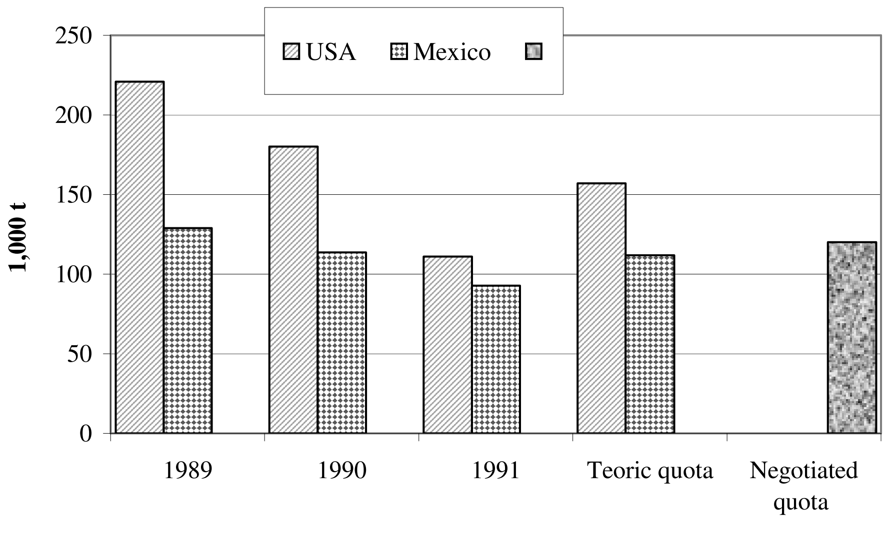
10 Beginning in 2001 assistance was provided for marketing barley from 19,100 hectares in Baja California (Mexico's Presidential Office, *2º Informe de Gobierno*. September 1, 2002. Annex, p. 322).

Figure 1. Mexico: Scheme for negotiated tariff reduction for barley in NAFTA



Source: Elaboration of data from Table 3.

Figure 2. Differences in US and Mexican statistics on barley imports, 1989-1991 (1,000 t)



Source: USDA, Foreign Agricultural Service, http://www.fas.usda.gov/ustrdscripts/USReport.exe 22.02.2003 y BANCOMEXT, *World Trade Atlas*, 2002.

Results from NAFTA for the barley-malt chain

During the years of transition to free trade, barley and malt imports together dramatically surpassed the negotiated quotas (although the pattern is irregular) due to a number of factors: in 1995, the devaluation of Mexico's currency made imports more expensive; in 1997, the prices of all grains rose in the world market due to generalized scarceness and the trade in grains decreased; in 2001 and 2002 barley became scarce on the US and Canadian markets as a result of a prolonged drought. Despite these realities, Mexico imported 1.4 million tons beyond the negotiated quota between 1994 and 2002 (Figure 3 and Table 4).

In general, imports entered through additional quotas, and tariffs were not paid.[11] By the year 2002, the Department of the Economy initially authorized an amount of 221,618 tons to be imported from the United States and Canada (published on December 7, 2001 in the government publication *Diario Oficial*). It is worth mentioning here that the Department of the Economy was not obliged to publish this information, since it was negotiated in NAFTA. On August 28, 2002 the same government department authorized 14,300 additional tons,[12] and on November 19, it approved 23,197 more tons without charging tariffs.[13] And if that was not enough, the text in the *Diario Oficial de la Federación* states: "the Department of the Economy and the Department of Agriculture, Cattle Production, Rural Development, Fisheries and Food have consulted the producers and consumers in the corresponding productive chain…"[14] It is no secret that the authentic producers[15] of malting barley have no knowledge of these measures and are totally surprised to find themselves faced with a free trade scenario beginning on January 1, 2003.

[11] Complete information regarding the expanded quotas is not available, since the Department of the Economy is not able to provide the information.

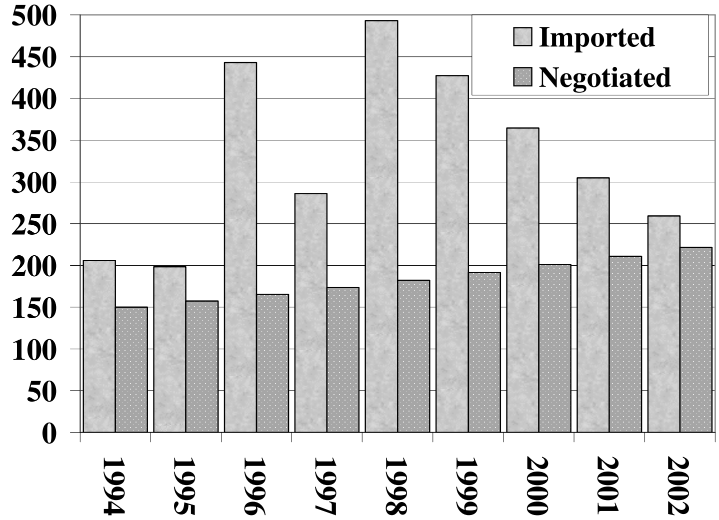
[12] Diario Oficial, *Acuerdo por el cual se determina la cuota adicional para importar cebada y malta, originarias de los Estados Unidos de América en el año 2002*. Thursday, August 29, 2002, first section, pp. 1-4.

[13] Diario Oficial, *Acuerdo por el que se incrementa el monto adicional para importar cebada y malta, originarias de Estados Unidos de América y/o Canadá en el año 2002*. Tuesday, November 19, 2002, first section, pp. 61-64.

[14] *Ibid.,* p. 62.

[15] Authorization for the increased quota was backed by a rural organization.

Figure 3. Mexico: Negotiated quota and actual barley-malt imports from the United States and Canada, 1994-2002 (1,000 t)



Source: SECOFI, 1994 and BANCOMEXT, 2003

Table 4. Mexico: Negotiated quota and assigned, tariff-free quota, and actual importing of barley-malt from the US and Canada, 1994-2003 (t)

	Negotiated quota				**Importación real**		
	USA[1)]	Canada[1)]	Cupo total	Assigned[2)]	USA[3)]	Canada[3)]	Total
1994	120,000	30,000	150,000	167,608	157,364	48,664	206,028
1995	126,000	31,500	157,500	169,971	175,383	22,771	198,154
1996	132,300	33,075	165,375	319,975	357,687	85,113	442,800
1997	138,915	34,729	173,644	263,726	229,847	56,150	285,997
1998	145,860	36,465	182,325	384,496	287,356	205,919	493,275
1999	153,154	38,288	191,442	424,898	266,619	160,877	427,496
2000	160,811	40,203	201,014		251,835	112,411	364,246
2001	168,852	42,213	211,065		234,771	70,187	304,958
2002	177,295	44,324	221,618	259,115*			
2003	Free	Free	Free				

Source: 1) SECOFI, 1994, *Tratado de Libre Comercio de América del Norte. Fracciones Arancelarias y Plazos de Desgravación*, Ed. Porrúa, pp. 70, 80 y 83; 2); SAGARPA, Dirección General de Asuntos Internacionales, *Comercio Exterior y Promoción de Negocios*, Comercio Exterior, http://www.sagarpa.gob.mx/Dgai/3-4.pdf; 3) Bancomext, Atlas de Comercio Exterior de México, 1993-2000 en CD y BANCOMEXT, Sistema de Consulta y Recuperación de Información Estadística, *Importaciones totales,* http://fenix.rtn.net.mx/sicrei/estadisticas/espanol/e_principal.html; *Diario Oficial, *ACUERDO por el que se incrementa el monto adicional para importar cebada y malta, originarias de los Estados Unidos de América y/o Canadá en el año 2002*. Martes 19 de noviembre de 2002, Primera Sección, pp. 61-64.

The fact that the negotiated tariffs were not paid from 1994 to 2002 signifies, in the case of barley, a fiscal loss of approximately US $153 million.[16] The loss is nearly exactly the same amount that the Mexican government spent on subsidizing barley through the Procampo program (US $162 million) during this same period of time.[17] In other words, charging tariffs on imports beyond the established quota would have been nearly sufficient to assist the production of this crop within the current schemes.

Low-priced imports and the lack of assistance contributed to a lack of incentives for national production. During the 1994-1999 period, production was 100,000 tons less than in the baseline years for NAFTA negotiations (1989-1991). The decrease in barley imports during the most recent years is due, as already mentioned, to the lowered production of this grain in Canada and the US, and can absolutely not be interpreted as "benefits from the trade agreement."[18]

The tendency toward increasing malt imports, as observed most recently, indicates that the beer industry is directly supplied through the importing of this intermediary raw material (Figure 4).

The most notable impact from NAFTA is on the prices paid to primary producers in Mexico. As can be observed in Figure 5, there is a direct correlation between the prices paid for barley imported from the US and Canada, and the prices received by Mexican producers.

It is generally known that the prices of US exports are below production costs, and consequently dumping practices are used —to the detriment of producers in developing countries. A recent study by the Institute for Agriculture and Trade Policy demonstrates that this is what takes place in a number of crops.[19] Unfortunately, it is not possible to apply the methodology proposed by the Institute because the US Department of Agriculture (USDA) does not publish production costs for malting barley, but rather only for barley in general —in other words, without distinguishing malting barley from feed barley. If we make some adjustments to the available information, it turns out that the data published by the USDA indicates financial losses for all the barley-producing areas during the 1990s. In 2001, the loss per hectare was an

---

16 Authors' calculation based on multiplying the additional quota by the specific tariff negotiated for that quota.

17 Authors' calculation based on the land area planted with barley and the Procampo payment for the spring-summer cycle (Mexico's Presidential Office, 2002, *2º Informe de Gobierno, op. cit.*, pp. 316 and 322).

18 Galarza, Gerardo, *Renegociar el TLC, no; revisión, sí*. El Universal newspaper, Saturday, January 25, 2003, p. A6.

19 IATP, *United States dumping on world agricultural markets*. Series Paper No. 1. http://www.wto-watch.Org/li- brary/admin/uploadedfiles/United_States_Dumping_on_World_Agricultural_Ma.pdf.

average of US $241.90 in all the producing areas in the US.[20] In other words, without subsidies, United States producers would discontinue barley production. Also, the United States uses the Export Enhancement Program to subsidize malting barley exports, paying exporters the difference in order to give the product a lower price on the markets.[21] This type of subsidies causes serious distortion to prices on the international markets.

In the case of Canada, exporting is controlled and managed by the Canadian Wheat Board, a government trading agency that assists in storage and organizes exportation. Also, since the country has been forced to discontinue traditional subsidies to transportation, it has intensified *green* assistance by creating new research centers and providing technical support for its barley producers. Therefore, it may appear that Canada subsidizes very little, but that is only the case when viewed in relation to the calculation schemes that are internationally accepted by the Organization for Economic Cooperation and Development (OECD), since Canada has developed intelligent forms of dominating markets (organization, quality, information, research, etc.) that make it possible to maintain and expand its positioning in those markets. Also, Canada maintains a comprehensive system for the social well-being of its rural producers (health insurance, education, reduced taxes, low energy prices, etc.) and this does not enter into the calculations.[22]

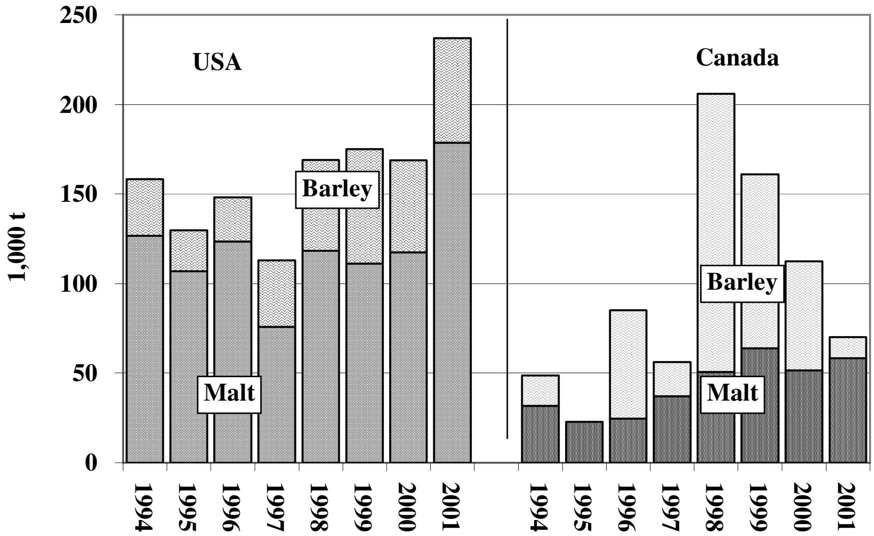
---

20 Authors' calculation based on USDA/ERS*, U.S. and regional cost and return estimates for the most recent two years, 2000-2001*, http://www.ers.usda.gov/data/costsandreturns/data/current/C-Barl.xls

21 USDA/FAS, FASonline, *Export Enhancement Program*, January 2001, http://ffas.usda.gov/info/factsheets/eep.html; T.G. Schmitz, W.W. Koo and Th.I. Wahl*, The Impact of the Export Enhancement Program on International Feed Barley Markets*, presented at the 1998 American Agricultural Economics Association Annual Meeting, August, 1998, 17 p.

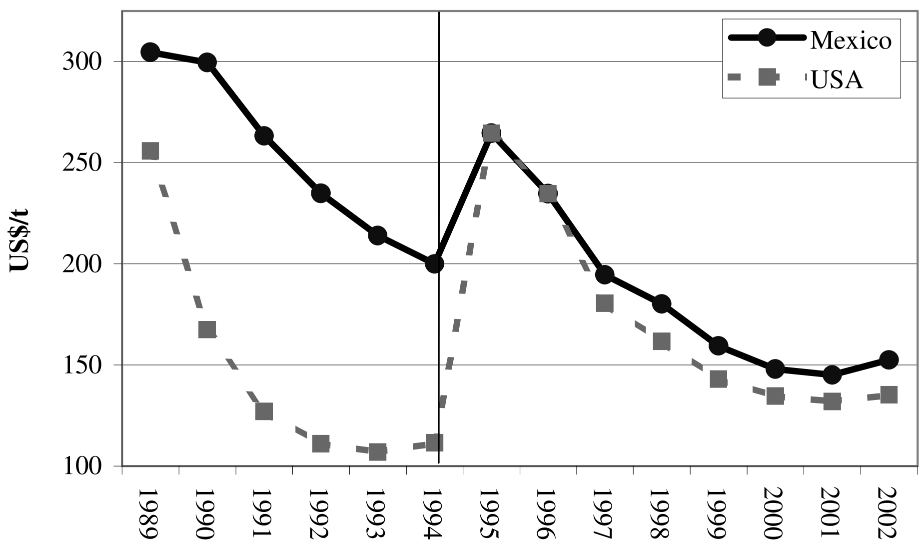
22 National Barley Growers Association, Policy Paper, June 2002, http://www.washingtonbarley.org/Policy%20Pa- pers%20NBGA.html.

Figure 4. Mexico: Importing of barley and malt from the US and Canada, 1994-2001 (1,000 t)



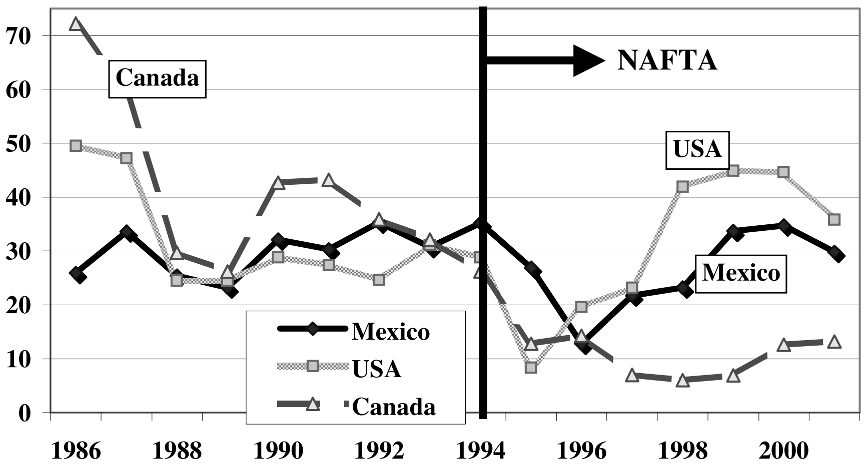
Source: BANCOMEXT, 2003

Figure 5. Correlation between prices for importing malting barley and prices paid to producers in Mexico, 1999-2001 (US $/t)



Source: Authors own data and USDA, 2003.

Figure 6. NAFTA region: Equivalent of subsidies to barley producers, 1986-2001 (ESP, percent of producer income)



Source: OECD, *Agricultural Compendium* 2002, Beyond 20/20.

Current scenario

Since 2002 Mexico's beer industry has been concerned about the lack of raw materials on the world market. Prolonged droughts in Australia, Canada and the United States, and the resulting reduction in harvests have endangered the supply. Canada's harvest decreased from 11.3 million tons to approximately 7.8 tons for the year 2002. This is Canada's lowest production in the past 34 years, with its exports decreasing to half the amount registered for the year 2001, to a level below that registered in 1968-69.[23]

Production in Australia dropped from 7.5 to only 4.6 million tons.[24] Australia is the primary supplier for China, where the demand increases at rates of 5-6% per year. For example, in 1978 China produced 40,000 tons of beer; in 1991, 8 million tons; and by the year 2000, 23 million tons. It is not able to produce the raw material (barley) needed for the amount of beer just mentioned, and needs to import two-thirds of the total amount required. Given the scarce supply available from Australia, China turns to the European market, but there the situation is also critical. Germany, one of the world's primary consumers of beer registered the production of 1.5

[23] King, B., *Malting Barley – Market Update 27.09.02*. CRISP Malting Group.

[24] Durst-Malz Homepage, *Marktbericht Quartal 02/2002*, http://www.durst-malz.de/html/d/markt/marktbericht_02_02.pdf

million tons of malting-quality barley in 2002, in comparison to its demand for 2.4 million.[25]

The world demand for malting barley is estimated at 20 million tons per year. In normal years, the supply is not high enough to create any reserves, and consequently in 2002 the situation became critical, and by the end of that year prices were above the limits of US $300 per ton in Europe.[26]

In this context, Mexico's industry is focusing more on national production, seeking to guarantee the raw materials it needs through contracts and the incorporation of new barley-producing areas. Among the measures taken is an agreement made by the Impulsora Agrícola company (which serves as a link between the malt-beer industry and producers) to purchase a minimum of 350,000 tons of barley in the spring-summer cycle for the next seven years, beginning with 2003.[27] Nonetheless, the Impulsora Company is playing with fire by demanding quality standards without defining its own responsibility in complying with such standards.

Justification for a new policy for promoting development and for the renegotiation of NAFTA

Mexico has potential for exporting malting barley, malt and beer that has not been fully tapped. In the future its overall trade balance could be positively impacted by importing fewer raw materials and beginning to export malt.

According to the rules of origin, Mexican beer should be produced using raw materials from Mexico. This is especially important for exporting to all the regions beyond the NAFTA region, but especially for Mexicans who reside in the United States and Canada.

The non-irrigation region of Mexico's highlands is suitable for barley production, since barley is a crop that demands little water and has a short growth cycle of only 100 days. In this region of Mexico it is essentially impossible to implement a productive reconversion to other crops, due to the freezes that occur during the crop cycle and the limitations in digging wells for irrigation. The characteristics of malting barley, with its low requirement for nitrogen, are compatible with the environment and the demand for high-quality water in the country's central region.

---

[25] Linker, S., *Braugerste am Anfang einer Super-Hausse?*, Hessisches Dienstleistugszentrum, http://www.agrarberatunghessen. de/markt/analysen/2002/ 010120021009 02.html, 16.02.2003

[26] *Ibid.*, p. 5.

[27] Agroenlinea, *La industria cervecera, industria sólida del sector agroindustrial,* http://www.agroenlinea.com/agro/portlets/aecono- mi/aeconomicobody.jsp?ID_ANALISIS=12, 16.02.2003.

The barley-malt-beer agroindustrial chain is an important generator of employment. The number of primary-level production units is estimated at 58,000.[28] In addition, the malt and beer industry supplied 24,954 jobs in 2001.[29] A proposal to enhance this agroindustrial chain could generate a considerable number of new jobs.

This proposal adheres to the Law for Sustainable Rural Development and the Sector-based Program for 2001-2006, which propose rebuilding productive chains.

By not applying the limits negotiated in NAFTA and rather unilaterally expanding the established quotas without charging the negotiated tariffs, the Mexican government has not taken advantage of the agroindustrial chain's potential for development, for creating jobs and for generating foreign currency. The current situation in 2003, in which there is an under-supply in international markets, presents an opportunity to reconsider the policy for promoting development and to establish the foundations for future development.

Given that Mexico's trade partners are distorting trade through the use of various forms of subsidies, hindering an efficient allocation of resources in accordance with the laws of the free market, it is necessary to demand the renegotiation of NAFTA. If Mexico does not have the resources necessary to compensate for the direct and indirect assistance granted to barley producers in the United States and Canada, and if these trade partners do not offer compensation funds together with a plan for the economic and social integration of the three countries, then the Mexican government is obliged to reconsider the conditions established in NAFTA.

Proposals for renegotiating NAFTA and for policies aimed at promoting development

We are proposing that the United States be assigned a quota of 120,000 tons of barley and/or malt (equivalent to barley), and that Canada be assigned a quota of 30,000, in accordance with levels negotiated for the beginning of NAFTA in 1994. Neither of the two countries was able to fill this quota in 2002: the United States exported 107,930 tons to Mexico,[30] and Canada, 28,518.[31] This proposal signifies maintaining trade among the three countries in reasonable terms and leaving a margin for the future. This scheme does not require a specific entity for assigning quotas. The

---

[28] INEGI, 1994, *VII Censo Agrícola-Ganadero*, Vol. I, Aguascalientes, pp. 148-149.

[29] Secretaría de Economía, Subsecretaría para la pequeña y mediana industria, Banco de Información Sectorial, Establecimientos y Empleo, http://www.spice. gob.mx/portal/.

[30] USDA/FAS, USTRADE, http://www.fas.usda.gov/ustrdscripts/USReport.exe, 26.02.2003.

[31] http://www.statcan.ca, 14.02.2002

government will be responsible for guaranteeing the implementation of controls at the border, both to assure the registering of amounts imported as well as to verify levels of quality.

In line with the renegotiation achieved in the case of poultry, the proposal for barley is to maintain the 2001 tariff scheme for amounts over the quotas assigned to the trade partners. This means a tariff of 48.6% *ad valorem*, or US $58/t for malting barley and 66.5% *ad valorem*, or US $80/t for malt.

Any importation that benefits from subsidies for exportation will be prohibited.

The protection scheme will be reviewed after five years of implementation.

Mexico reserves the right to change the protection scheme, but only if its trade partners have ceased to directly or indirectly subsidize the overall chain.

Mexico defines the support price at $2,250/t in real terms for the next five years, starting from the time the proposal is accepted.[32]

Mexico will implement a policy for promoting the development of primary production with the aim of generating high-quality raw materials for the beer industry while protecting the environment:

Research will concentrate on creating new varieties of barley with malt and beer quality.

A center for management of the barley-malt-beer chain will be created, and will be co-financed by the federal and state governments, the Department of Agriculture, Cattle Production, Rural Development, Fisheries and Food (Sagarpa) and producers. The purpose will be to carry out the following activities: the annual Congress of the barley-malt-beer chain, training, market analysis, producers' soil analysis, report on recommended varieties, and the organization of self-insurance, as well as other activities required for the center's development.

[32] Currently, the equilibrium price is $2,044 per ton, according to the authors' field work.

References and Selected Bibliography

Agroenlinea, La industria cervecera, industria sólida del sector agroindustrial, http://www.agroenlinea.com/agro/portlets/aecono-mi/aeconomicobody.jsp?ID_ANALISIS=12

Anheuser-Busch, http://www.anheuser-busch.com/

BANCOMEXT, World Trade Atlas, 2002.

BANCOMEXT, Sistema de Consulta y Recuperación de Información Estadística, Importaciones totales, http://fenix.rtn.net.mx/sicrei/estadisticas/espanol/e_principal.html

Buschena, D.E., R.S. Gray and E. Severson, Changing Structures in the Barley Production and Malting Industries of the United States and Canada, Policy Issues Paper No. 8, October 1998, http://www.staff.ncl.ac.uk/david.harvey/AEF 372/Additions/Maltbarley.pdf.

Buschena, D.E. and R.S. Gray, Trade Liberalization and International Merger in Cournot Industries: The Case of Barley Malting in North America, paper presented at the 1998 AAEA Annual Conference, Salt Lake City, Utah, USA, 15 p.

Diario Oficial, Acuerdo por el cual se determina la cuota adicional para importar cebada y malta, originarias de los Estados Unidos de América en el año 2002. Thursday, August 29, 2002, first section.

Diario Oficial, Acuerdo por el que se incrementa el monto adicional para importar cebada y malta, originarias de Estados Unidos de América y/o Canadá en el año 2002. Tuesday, November 19, 2002, first section

Durst-Malz Homepage, Marktbericht Quartal 02/2002, http://www.durst-malz.de/html/d/markt/marktbericht_02_02.pdf

FEMSA, http://www.femsa.com/

Galarza, Gerardo, Renegociar el TLC, no; revisión, sí. El Universal newspaper, Saturday, January 25, 2003

Grupo Modelo, http://www.gmodelo.com/

IATP, United States dumping on world agricultural markets. Series Paper No.1.
http://www.wto-watch.Org/library/admin/uploadedfiles/United_States_Dumping_on_World_Agricultural_Ma.pdf.

INEGI, 1994, VII Censo Agrícola-Ganadero, Vol. I, Aguascalientes, Mexico.

King, B., Malting Barley – Market Update 27.09.02. CRISP Malting Group.

Labatt, http://www.labatt.com/enhanced/index_2.html

Linker, S., Braugerste am Anfang einer Super-Hausse?, Hessisches

Dienstleistugszentrum, http://www.agrarberatunghessen.de/markt/analysen/ 2002/ 010120021009 02.html

Mexico's Presidential Office, 2º Informe de Gobierno. September 1, 2002. Annex

National Barley Growers Association, Policy Paper, June 2002, http://www.washingtonbarley.org/Policy%20Pa- pers%20NBGA.html.

OECD, Agricultural Compendium 2002, Beyond 20/20. Paris, France, 2003.

SAGARPA, Dirección General de Asuntos Internacionales, Comercio Exterior y Promoción de Negocios, Comercio Exterior, http://www.sagarpa.gob.mx/Dgai/3-4.pdf

Secretaría de Economía, Subsecretaría para la pequeña y mediana industria, Banco de Información Sectorial, Establecimientos y Empleo, http://www.spice. gob.mx/portal/.

SARH, Dirección General de Política Agrícola, 1993, PROCAMPO. Vamos al grano para progresar, Mexico City, PROCASG.DOC – 09/26/93 05:58 PM

SECOFI, 1994, Tratado de Libre Comercio de América del Norte. Fracciones Arancelarias y Plazos de Desgravación, Porrúa publishers, first edition

USDA/ERS, U.S. and regional cost and return estimates for the most recent two years, 2000-2001, http://www.ers.usda.gov/data/costsandre-turns/data/current/C-Barl.xls

USDA/FAS, FASonline, Export Enhancement Program, January 2001, http://ffas.usda.gov/info/factsheets/eep.html; T.G. Schmitz, W.W. Koo and Th.I. Wahl, The Impact of the Export Enhancement Program on International Feed Barley Markets, presented at the 1998 American Agricultural Economics Association Annual Meeting, August, 1998, 17 p.

USDA/FAS, USTRADE, http://www.fas.usda.gov/ustrdscripts/USReport. exe

Submission of research papers and manuscripts for publication should be sent to:

Prof. Bruno Amoroso
Federico Caffè Centre
Dept. of Social Sciences, HUS 22.1
Roskilde University
P.O. Box 260, DK-4000 Roskilde, Denmark

Note for the authors:

The research report must be submitted in Windows 2000, two copies on paper and one on diskette or via email, single spaced, font 14 Times new roman. Normal length is between 5000-7000 words (incl. tables and references)
E-mail address: amoroso@ruc.dk