# TAMRC REPORT



## THE U.S.-MEXICO FREE TRADE AGREEMENT: AGRICULTURAL TRANSPORTATION ISSUES

Stephen W. Fuller*

*U.S.-Mexico Free Trade Issues for Agriculture Series*
*TAMRC International Market*
*Research Report No. IM-7-91*
*April 1991*

## TEXAS AGRICULTURAL MARKET RESEARCH CENTER REPORT

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Texas Agricultural Market Research Center (TAMRC) U.S.-Mexico Free Trade Issues for Agriculture Series, TAMRC International Market Research Report No. IM-7-91, by Stephen W. Fuller, Department of Agricultural Economics, Texas A&M University, April 1991.

**ABSTRACT:** This paper examines agricultural transportation issues relating to a U.S.-Mexico Free Trade Agreement (FTA) and considers the implications for both agriculture and the transportation industry in the U.S. and Texas. Priority agricultural transportation issues to be monitored during negotiations include access of the U.S. trucking industry to Mexico, administrative constraints at border crossings, and the inadequate and outdated Mexican transportation system.

# THE U.S.-MEXICO FREE TRADE AGREEMENT: AGRICULTURAL TRANSPORTATION ISSUES

## EXECUTIVE SUMMARY

The proposed free trade agreement (FTA) with Mexico seeks to expand the flow of trade between the U.S. and Mexico through comprehensive elimination of tariffs and non-tariff trade barriers. This paper examines transportation issues relating to a U.S.-Mexico FTA and considers the implications for both agriculture and the transportation industry in the U.S. and Texas. The essential points include the following:

- The Mexican transportation infrastructure has been inadequate to handle the large increase in U.S./Mexico trade in recent years and, if not improved, will limit the potential for expansion in trade volume as a result of a U.S.-Mexico FTA. Some view transportation bottlenecks as the most important non-tariff barrier to increased trade.

- Much of the comparative advantage of the U.S. and Texas in the export of grains and oilseeds to Mexico is offset by the inadequate capacity and operating rules of the nationalized Mexican railroad.

- Prohibition of intercountry motor carrier movement creates inefficiencies. Removal of these constraints and harmonization of motor carrier regulations to facilitate more efficient motor carrier trade will be necessary if potential gains from liberalization of commodity trade between the U.S. and Mexico are to be fully realized.

- Exporters complain that administrative irregularities at Mexican customs often delay and complicate trade between the two countries. Harmonized procedures are needed.

- Priority agricultural transportation issues to be monitored during negotiations include access of the U.S. trucking industry to Mexico, administrative constraints at border crossings, and the inadequate and outdated Mexican transportation system.

# THE U.S.-MEXICO FREE TRADE AGREEMENT: AGRICULTURAL TRANSPORTATION ISSUES

Although the most comprehensive in Latin America, the Mexican land transportation system and infrastructure has been inadequate to handle the increase in trade Mexico has experienced in recent years (GAO). The Mexican rail system is reportedly outdated and lacks the capacity to carry the increasing cargo from the United States (GAO). Mexican storage capacity is severely limited and roads are in a state of general disrepair. Tremendous delays in loading, unloading, and movement within Mexico are frequently reported. Complicated, lengthy, and cumbersome customs clearance procedures at border crossing points add to the delays and the costs of transporting goods to and from Mexico. Consequently, resolving transportation issues may be as important as eliminating trade barriers as a means of boosting U.S.-Mexico agricultural trade. This paper examines transportation issues relating to a U.S.-Mexico FTA and considers the implications for both agriculture and the transportation industry in the U.S. and Texas.

## BACKGROUND

Transportation services in Mexico include motor carriers, railroads, marine, and air. The railroad network in Mexico is government-owned and operated. Maritime and air transport industries in Mexico are also owned and operated by the federal government. Motor carriers are operated by the private sector but were heavily regulated until July 1989. Trucks transport an estimated 80% of Mexican commerce. Motor carriers play an extremely important role in the U.S. import of horticultural products from Mexico. Further, Mexico's railroad, maritime, and port system are extremely important to growing U.S. exports of grain and oilseed exports to that country.

### Railroads

The Mexican railroad network includes almost 20,000 kilometers (km) and is operated by the government-owned Nacionales de Mexico. Railroads connect to the United States at several border points, including Brownsville, Texas (Matamoras, Tamaulipas); Laredo, Texas (Nuevo Laredo, Tamaulipas); Eagle Pass, Texas (Piedras Negras, Coahuila); Presidio, Texas (Ojinaga, Chihuahua); El Paso, Texas (Ciudad Juarez, Chihuahua); Nogales, Arizona (Heroica Nogales, Sonora) and Calexico, California (Mexicali, Baja California Norte). The Union Pacific System connects at Brownsville and Laredo, Texas. A shortline road operating between Corpus Christi and Laredo, the Texas-Mexican Railroad, also connects to Laredo, Texas. The Santa Fe connects with Mexico at El Paso and Presidio, Texas while the Southern Pacific offers service to Eagle Pass, Presidio, Nogales, and Calexico. Data for estimated overland crossings of the grain and grain products exported from the U.S. to Mexico in 1987 indicate that Laredo (53%), El Paso (22%), and Brownsville crossings (10%) handle about 85% of overland grain and related shipments (Table 1).

The Mexican Constitution currently reserves the right to own and operate railroads for the Mexican government. Private ownership or operation, either Mexican or foreign, is not permitted. The Mexican rail system is characterized by outdated infrastructure, facilities, and procedures. There is a critical lack of rolling stock. Both U.S. and Mexican industry spokesmen have noted cases in which rail cars were often unavailable for transport (USITC, October 1990). The Mexican rail system reportedly lacks the capacity to carry the increasing cargo bound from the United States to Mexico. Imported supplies awaiting transport face delays as long as 2 weeks or more (GAO).

Further complications are created by outdated unloading facilities that delay turnaround time of U.S. cars destined to Mexico. Due to inadequate warehouse capacity for unloading, U.S. rail cars

are often used for storage. A 1989 study by Union Pacific determined that the average turnaround time for U.S. rail cars moving to Mexico City was 40 days (GAO).

Over the past decade about 60% of the bulk commodities moving from the U.S. to Mexico has moved by sea and 40% by rail. As trade volume increased in recent years, however, up to 80% of the U.S. bulk commodities moved by sea and 20% by land. Consequently, U.S. sellers lose some of their comparative advantage in the Mexican market (GAO). Particularly vulnerable are U.S. grain exports to Mexico which must compete with the products of Argentina and Australia.

**Motor Carriers**

Trucking is the leading transport industry in Mexico because railroad capacity has not grown in recent decades. About 82% of Mexican freight is carried by motor carriers. Since 1982, trucking has been adversely affected by slow or negative growth in per capita real income in Mexico and the internal budget and external debt crises. Highway construction came to a virtual standstill in recent years and the replacement of trucks and trailers has been inadequate. Authorities attempted to correct for inadequacy of highway transportation with regulatory measures but this appeared to cause additional problems (Landero).

Because trucks have been expensive in Mexico, entry into the industry has required a major initial investment and has been difficult to accomplish. In addition, over-regulation of the industry has erected additional barriers to entry. Until the recent deregulation, trucking in Mexico was divided into 11 routes nationwide. The industry was managed by regional cartel-like organizations called "freight service centers" that determined cargo movement in their respective areas. These centers granted concessions to carriers and also allocated shipments of cargo between truckers. Each trucker was restricted to designated routes and types of cargoes. In turn, the centers were controlled by a small number of large truckers. These truckers enjoyed oligopolistic profits and, therefore, were able to withstand the adversities of the macroeconomic environment such as price controls and increasing costs of operation (USITC, April 1990).

Prior to deregulation, shippers were adversely affected by the oligopolistic behavior of the trucking industry in many ways. Most importantly, shippers were not free to choose their carriers. Moreover, the oligopolistic nature of the system resulted in an increase in shipping costs, contributed to the obsolescence of the trucking fleet, weakened the quality of services, and left certain areas without service (Landero).

The new trucking deregulation decree addresses the provisions in the 1989-94 National Development Plan which calls for updating and modernizing pertinent institutions and regulatory mechanisms to make Mexican transportation more efficient and competitive. Mexican officials hope that the relative freedom now granted in setting rates and the resulting price decline will reduce the excessive profit margins of carrier oligopolies. Officials also expect that a liberalized highway transportation market will encourage services to be provided for poorly served areas and generally increase the availability of trucking for users (USITC, April 1990).

Among other provisions, the Mexican government's annual program for 1989 authorizes private companies, including foreign investors, to participate in building and maintaining highways. Until last year, the Federal government has been the only authority in charge of planning and carrying out the coordination of the Federal deregulation program with municipal authorities in Mexico (USITC, April 1990).

Of the 1.479 million metric tons (mt) of fresh Mexican produce imported into the U.S. in 1988/89, 32% arrived at the U.S. border in small trucks, 56% in tractor-trailer rigs, 11% by

piggyback, and the remainder by airplane. Leading import locations included Nogales (58%), Reynosa (18%), Tijuana (6%), San Luis (6%), Mexicali (4%), and four additional crossings in Tampico (6%). Most fresh vegetable imports from Mexico require hauls ranging from 300 to 700 miles. Based on suggested rates for refrigerated vans in August, 1990, motor carrier rates are estimated at about $500/truckload (22.5 ton) for a 300 mile haul ($1.11/cwt). For a 700 mile trip, the truckload rate would be about $935 ($2.08/cwt). In general, these rates appear to be higher than comparable interstate hauls in the United States (Fuller and Hall).

### Ports

Principal Mexican ports involved in agricultural commerce include Ensenada, Baja California Norte (citrus, grain); Guaymas, Sonora (grain, cotton); Lázaro Cárdenas, Michoacan (grain, food processing); Manzanillo, Colima (grain); Salina Cruz, Oaxaca (coffee); San Carlos, Baja California Norte (cereal, cotton); Tampico, Tamaulipas (grain); Topolobampa, Sinaloa (grain); Yukalpetin, Yucatan (vegetables -- cold storage); Veracruz, Veracruz (cereals); Progreso, Yucatan (cereals); Tuxpan, Veracruz (cereals); Mazatlan, Sinaloa (cereals) (Ports of the World).

Mexico imported approximately 64% of its grain, oilseed, and related products via their ocean ports and the remainder (36%) overland in 1984. Approximately two-thirds of these marine-carried imports arrived at Gulf ports and about one-third at Pacific ports. Leading Mexican port areas in 1984 for the receipt of imported grains and associated products included: Tampico (18%), Tuxpan (14%), Veracruz (23%), Quaymas (18%) and Mazatlan (7%).

Although many Mexican ports have deep water, few provide a good harbor. Because five ports handle about 80% of all tonnage, port congestion is often a problem. Increased petroleum shipments, lack of cargo-handling facilities, and administrative bureaucracy also contribute to port congestion. For this reason, some Mexican shippers find it expedient to send their agricultural exports through Texas or California ports (GAO).

## POTENTIAL EFFECTS OF A U.S.-MEXICO FTA

In general, the Mexican transportation sector has suffered from inadequate investment and improper regulation and management by the public sector. Consequently, transportation capacity is constrained and additional congestion could be expected at higher trade levels. Regardless, the recent deregulation of the motor carrier industry and relaxation of restraints on foreign capital investment hold promise for this sector's future.

An often cited constraint or inefficiency to expanded U.S./Mexico trade is the Mexican prohibition against U.S. truck operation on Mexican highways. The longstanding Mexican discrimination against U.S. motor carrier operation led the U.S. to retaliate against Mexican carriers in 1984. U.S. legislation restricted the operation of Mexican truckers to commercial zones adjacent to the border. Disallowing commercial vehicle traffic between the two countries necessitates additional intermodal/intramodal transfer costs.

The motor carrier industry would likely be the most affected of the U.S. transportation industries by a U.S.-Mexico FTA (USITC, February 1991). U.S. imports of trucking services from Mexico under an FTA would most likely increase significantly, primarily as a result of pronounced wage differentials between Mexican and U.S. workers. However, the overall effect on U.S. imports

of all transportation services from Mexico would be moderate. U.S. exports of trucking services to Mexico, however, would not likely increase because of the poor condition, considerably smaller size, and already overcrowded condition of the Mexican highway system (USITC 1991).

Other transportation services, including rail, maritime transport, and air passenger, and cargo services, would likely be affected only marginally by an FTA. Even if a U.S.-Mexico FTA removed barriers that restrict private-firm participation in the Mexican railroad industry, the impact on the U.S. would likely be negligible. Liberalization of rail transport is not a significant issue because a minor portion of freight traffic is carried by rail and U.S. rail transport firms are not likely to expand into the Mexican market (USITC, February 1991).

Many analysts believe that a U.S.-Mexico FTA will lead to greater availability of investment capital from the U.S. or other international sources for the development of Mexican infrastructure, such as packing facilities, storage, and transportation to efficiently move U.S. agricultural commodities to major Mexican markets. Lacking significant improvements in the system, however, growth in U.S. agricultural exports to Mexico as a result of a U.S.-Mexico FTA would occur primarily in processed and less perishable foods and storable commodities.

## PRIORITY ISSUES TO MONITOR AND CLARIFY DURING THE NEGOTIATIONS

Besides the removal of tariffs and other explicit agricultural trade restrictions, negotiations on a U.S.-Mexico FTA will need to focus on less apparent but often more restrictive measures that adversely affect agricultural trade between the two countries. A number of issues in transportation will need consideration if liberalization of trade between the U.S. and Mexico is to lead to the expected increase in trade.

### Issue 1: Access of U.S. Trucking Industry to Mexico

Although Mexican truckers are allowed to operate in U.S. commercial zones, Mexico denies U.S. truckers access to Mexico. The Mexican prohibitions against the operation of American motor carriers in Mexico puts U.S. truckers at a disadvantage to their Mexican counterparts who bring their cargo into the U.S. and then backhaul U.S. cargo into Mexico. At the same time, the prohibition effectively restricts the volume of commodities that can cross into Mexico from the U.S. and may increase shipping costs since Mexican trucking rates may be higher than U.S. rates.

### Issue 2: Administrative Constraints at Border Crossings

Administrative procedures at overland border entry points are complicated, inconsistent, and quite lengthy which leads to congestion, bottlenecks, and long delays in processing cargo through customs from both directions but particularly from Mexico into the U.S. Periodic consultations between U.S. and Mexican customs officials have done little to alleviate the problem. Unless the problem is resolved, a U.S.-Mexico FTA may simply result in further congestion and impose increasing costs on shippers.

## Issue 3: Inadequate and Outdated Mexican Transportation System

Even if a U.S.-Mexico FTA achieved standardization and harmonization of all transportation regulations and customs procedures between the two countries, the general state of disrepair and inadequate capacity of the Mexican transportation system would not allow a significant increase in the flow of U.S. agricultural commodities to interior Mexican destination points. Specific provisions to foster the updating and expansion of the system as part of the FTA will likely be necessary to achieve long run gains. U.S. producers and exporters of U.S. agricultural commodities will not achieve substantial gain without improvement of Mexico's transportation system and infrastructure.

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Table 1. Estimated Border Imports of Grain and Related Products by Mexico at Crossing Points, 1987

| | Brownsville | Rio Grande City | Nuevo Progreso | Laredo | Eagle Pass | Presidio | El Paso | Nogales | Mexicali |
|---|---|---|---|---|---|---|---|---|---|
| | mt | mt | mt | mt | mt | mt | mt | mt | mt |
| Corn | 49,180 | 0 | 0 | 569,573 | 2,500 | 28,000 | 166,409 | 0 | 23,549 |
| Sorghum | 169,191 | 53,586 | 101,805 | 248,870 | 28,129 | 4,000 | 125,407 | 44,956 | 53,539 |
| Soybeans | 16,192 | 0 | 0 | 216,625 | 0 | 0 | 228,652 | 0 | 7,792 |
| Wheat | 0 | 0 | 0 | 61,409 | 0 | 0 | 0 | 0 | 0 |
| Soybean Meal | 2,563 | 0 | 0 | 33,712 | 0 | 0 | 5,057 | 4,908 | 2,542 |
| Soybean Oil | 278 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sunflower | 8,900 | 0 | 0 | 39,696 | 0 | 0 | 3,479 | 0 | 0 |
| Others | 7,971 | 0 | 0 | 113,090 | 0 | 0 | 12,265 | 4,423 | 4,523 |
| **TOTAL** | **254,275** | **53,586** | **101,805** | **1,282,975** | **30,629** | **32,000** | **541,269** | **54,287** | **91,945** |

Source: Compania Nacional De Subsistencias Populares (CONASUPO)