

CHARACTERIZATION OF THE STATE OF CHIHUAHUA
FOR INTERNATIONAL RECOGNITION AS A
CLASSICAL SWINE FEVER FREE ZONE

México / junio 1994



SUBSECRETARIA DE GANADERIA
Dirección General de Salud Animal

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I. INTRODUCTION

a) BACKGROUND

The concept of regionalization is not new, and in fact veterinary services in most countries have applied it successfully for a long time. Nevertheless, this idea had not been applied internationally until relatively recently.

The growth in world trade has led to a new conceptualization of the international animal health situation. Previously, when a disease occurred in any part of a country, the international community considered that the whole country was affected. This perspective resulted in major trade barriers, often hidden under the guise of animal health protection measures.

It must now be recognized that it is possible for there to be areas or regions within a country in which a given disease is not present or in which the prevalence of the disease is low.

The North American Free Trade Agreement (NAFTA) proposes the implementation of these concepts in order to facilitate international trade and at the same time protect animal health in the importing country. The three North American countries of Canada, United States, and Mexico are committed to regionalization, but the methodology for recognition of disease-free regions must be harmonized.

Although risk analysis is basically a tool for evaluating the possible impact associated with importations, in the case of regionalization it is used to evaluate the risk of introduction of a disease into a free zone. It is now recognized that a risk level of zero cannot be attained, so that risk management, that is, the application of various options for reducing it, becomes increasingly important.

One of the most important factors for conducting a reliable risk analysis is the quality of the information used. This in turn depends on the efficiency of data collection by the veterinary services of the country involved. The countries participating in the treaty must commit to sharing information about regionalization and risk analysis.

When evaluating the veterinary services of a country, it is necessary to consider various aspects, such as organization, legal and financial support, emergency systems, and diagnostic capability, among others.

The process of recognition of regions should be done bilaterally, since the importing country will thus have more confidence in the quality of the information gathered. However, this does not exclude the possibility of sharing and utilizing the information generated during the risk analysis and evaluation of veterinary services by another country if the risk situation is considered to be equivalent.

The decisions made should be based on scientific principles, and the whole process should be objective and transparent.

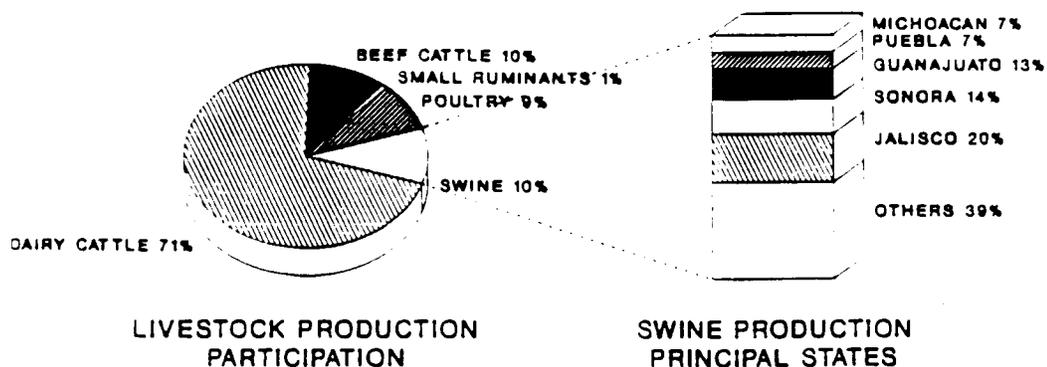
b) THE MEXICAN SWINE INDUSTRY

Hog production in Mexico is an area of the livestock subsector which suffered a marked slump during the period from 1985 to 1989, with a slight rebound occurring from 1990 to 1992. Pork production contributes substantially to the domestic food supply, exceeded only by beef production, with the same trend observed in per capita consumption.

In spite of the fluctuations in the swine inventory, productivity has been maintained basically through highly efficient production based on advanced techniques, and particularly due to the demand in the domestic and international markets for this industry's products.

As can be seen in the figure below, the principal swine-producing zones of the country are located in five states, which have an area of 387,900 km² that is, 16.69% of the country's total area, and supply 60% of domestic production having an estimated value of 2 billion pesos, with 483,500 tons of meat produced per year.

IMPORTANCE OF SWINE PRODUCTION IN MEXICO



SWINE MEAT TOTAL PRODUCTION
796,605 TON

For this reason, an interesting consideration is that for our country hog production is fundamental for the livestock industry's growth and development, and therefore any actions taken to achieve greater equality in competition in international markets will guarantee its continuity and expansion.

c) DESCRIPTION OF THE DISEASE

Amongst the characteristics of classical swine fever (CSF) is the fact that it is extremely contagious and causes high rates of morbidity and mortality in herds affected. The principal mechanisms for its transmission are sick or recently recovered hogs and their products and by-products, especially in the form of garbage fed to susceptible hogs.

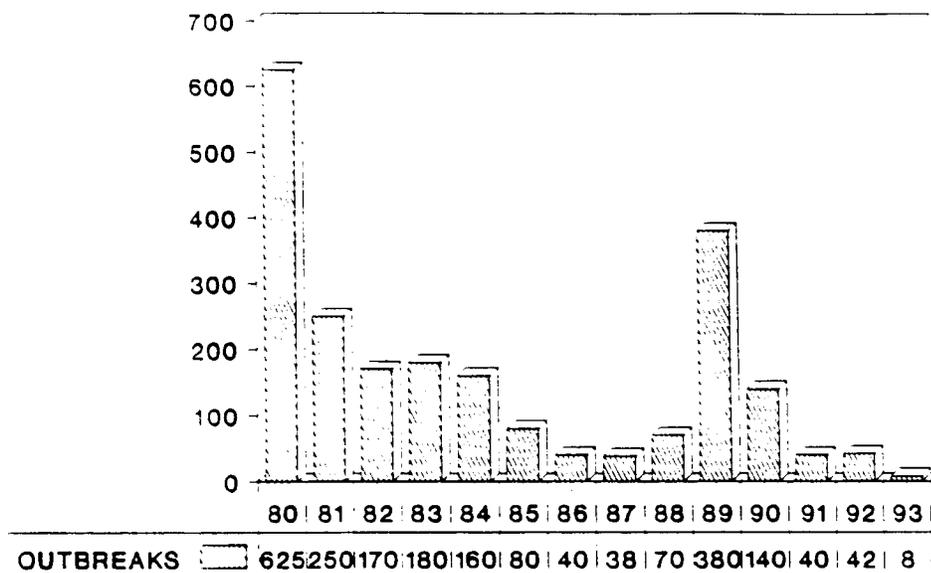
Classical swine fever is a disease caused by a virus of the togaviridae family, which usually follows an acute course, but it may have an atypical presentation. In the typical form, the hogs may have anorexia, a fever of 41°C or more, muscular tremors, prostration, intestinal constipation alternating with periods of diarrhea, mucopurulent eye secretions and skin erythema. In the final stages of the disease, nervous disorders and paralysis occur and finally death.

In the atypical form, which is caused by the so-called low-virulence strains, the signs observed may include the following: congenital tremors, also known as congenital myoclonia, which is seen in newborn piglets or within a few hours after birth, and is characterized by tremors of the head, neck, back, and hind legs. And finally, infection of newborn piglets by contagion from unvaccinated mothers, which die from acute CSF without the disease affecting the dams, and from healthy animals vaccinated with modified live virus with the characteristic that only young animals are affected.

d) THE CAMPAIGN IN MEXICO

A decree published in the Federal Official Daily of March 25, 1980, established the National Campaign for the Control and Eradication of Hog Cholera, now known as classical swine fever, and its corresponding program as general, mandatory, and permanent throughout the entire country, with modifications made in decrees published on March 12 and September 28, 1992, and also on May 20, 1993. Starting in 1990, the campaign was strengthened by the reincorporation of the General Division of Animal Health, and since then significant progress has been made.

CLASSICAL SWINE FEVER IN MEXICO



Advances and current situation.- In 1978, 58 municipalities in northern Sonora were incorporated into the eradication phase, and in 1990 the State of Chihuahua entered that same phase. In 1991, the States of Baja California and Baja California Sur and 11 municipalities in southern Sonora became free of this disease. In October 1992 the State of Sinaloa was incorporated into the eradication phase, and in 1993 the States of Coahuila (November), Nuevo León (February), Tamaulipas (November) and Yucatán (September) were incorporated. In addition, in 1993 the States of Chihuahua (September) and Sinaloa (November) became free of this disease. Since 1992 the States of Guanajuato, Jalisco, Michoacán, Querétaro, Puebla, and Tlaxcala have continued in the intensive control phase.

The current situation of the campaign is as follows:

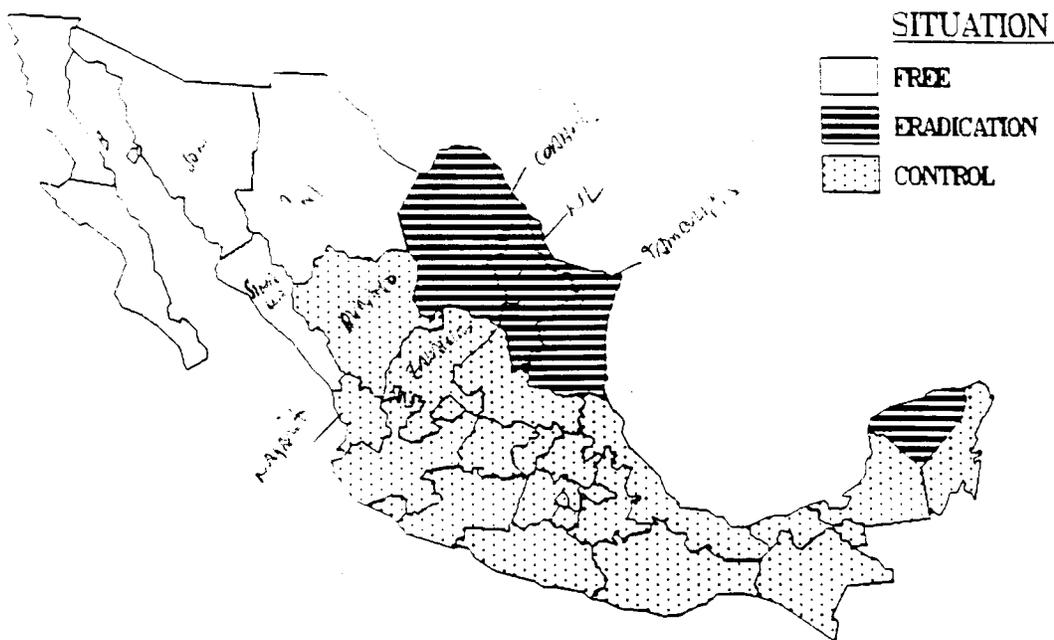
The States of Baja California, Baja California Sur, Chihuahua, Sinaloa, and Sonora continue in the classical swine fever free phase, which represents 32% of the total area of the country, 14% of the national inventory, and 19.61% of pork production.

Baja California Sur had an outbreak in May 1993, which was controlled by sanitary slaughter without the use of vaccine. The state recovered its disease-free status in December 1993, after completing six months without any cases.

The States of Coahuila, Nuevo León, Tamaulipas, and Yucatán are in the eradication phase, representing 17.1% of the area, 5.3% of the national swine inventory, and 5.4% of production. Since 1992 the States of Guanajuato, Jalisco, Michoacán, Querétaro, Puebla, and Tlaxcala are in the intensive control phase.

CLASSICAL SWINE FEVER

CURRENT SITUATION

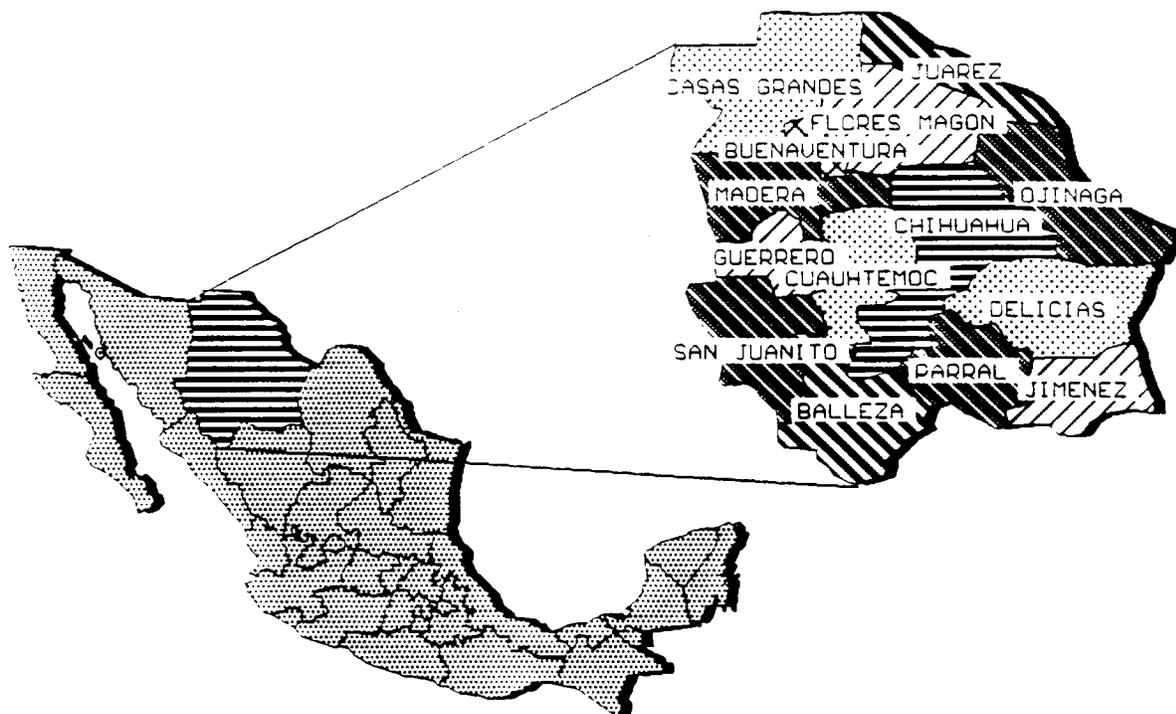


e) GEOGRAPHIC LOCATION OF THE STATE

Chihuahua is the largest state in the country. It is located in northern Mexico, between 26°36'58" and 31°47' N latitude and 103°11'08" and 109°07'07" W longitude. Its borders are: to the north and northeast, the United States (New Mexico and Texas); to the east, Coahuila; Durango to the south; Sinaloa to the southwest; and Sonora to the east.

Geographically, the State of Chihuahua is divided into four regions with very well defined characteristics, going from the desert region in the eastern part of the state, to the Sierra Madre Occidental mountain range in the east, passing through the central region made up of valleys, and a region of canyons in the southeast. Given these geographic conditions, the state has natural barriers which, when added to the climatic conditions of each region, keep it free from many diseases, which represents an advantage over other states.

RURAL DEVELOPMENT DISTRICTS CHIHUAHUA



The state has 14 Rural Development Districts (DDR) comprising 67 municipalities.

Rural Development District	Municipalities
01. Casas Grandes	Nuevo Casas Grandes Janos Ascensión
02. Buenaventura	Buenaventura Galeana
03. Flores Magón	Buenaventura Ahumada
04. Valle de Juárez	Valle de Juárez Praxedis G. Guerrero Guadalupe
05. Madera	Madera

	Gómez Farías Ignacio Zaragoza Namiquipa
06. Cuauhtémoc	Cuauhtémoc Riva Palacio Cusihuirachi Carichi Bachiniva
07. Guerrero	Guerrero Matachi Tenosachi
08. Chihuahua	Chihuahua Aquiles Serdán Aldama General Trias Gran Morelos Satevo Dr. Belisario Domínguez San Francisco de Borja Nonoava
09. Ojinaga	Coyame Ojinaga Manuel Benavides
10. San Juanito	Bocoyna Maguarichi Moris Ocampo Uruachi Urique Batopilas Morelos Guazapares Chinipas
11. Balleza	Guachochi Balleza Guadalupe Calvo
12. Parral	Hidalgo del Parral Allende San Francisco del Oro

Matamoros
Santa Bárbara
El Tule
Rosario
Huejotitan
Valle Zaragoza

13. Delicias

San Francisco de Conchos
Camargo
La Cruz
Saucillo
Delicias
Meloqui
Rosales
Julimes

14. Jiménez

López
Coronado
Jiménez

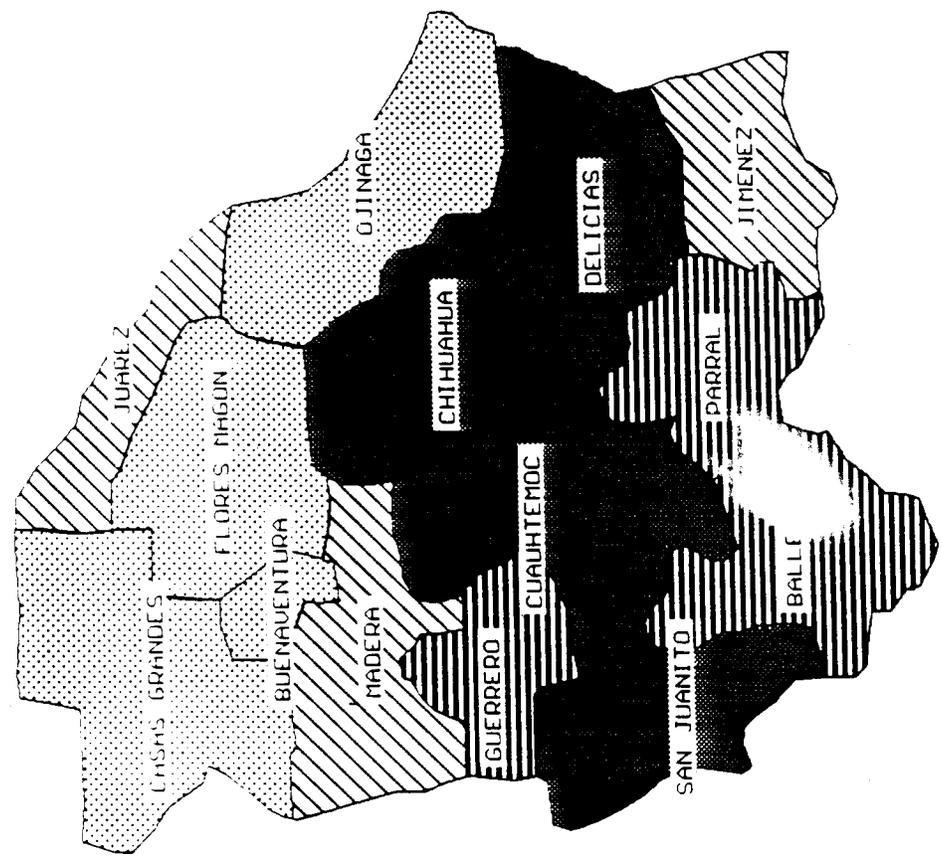
f) DESCRIPTION OF SWINE PRODUCTION IN THE STATE

In 1993, the State of Chihuahua had a swine inventory of 46,219 heads, distributed throughout the entire state.

In that same year, the state's production was 9,914 tons. Of the total gross value of livestock production in the State of Chihuahua, 5.8% corresponds to swine.

There are only two farms in the state using advanced production techniques, one in Cd. Juárez and the other in Parral, in addition to two experimental farms, one at the La Posta Livestock Development Center belonging to SARH and the other, the farm belonging to the University of Chihuahua's School of Animal Husbandry. The remaining swine production is of the backyard type.

SWINE POPULATION CHIHUAHUA



POPULATION

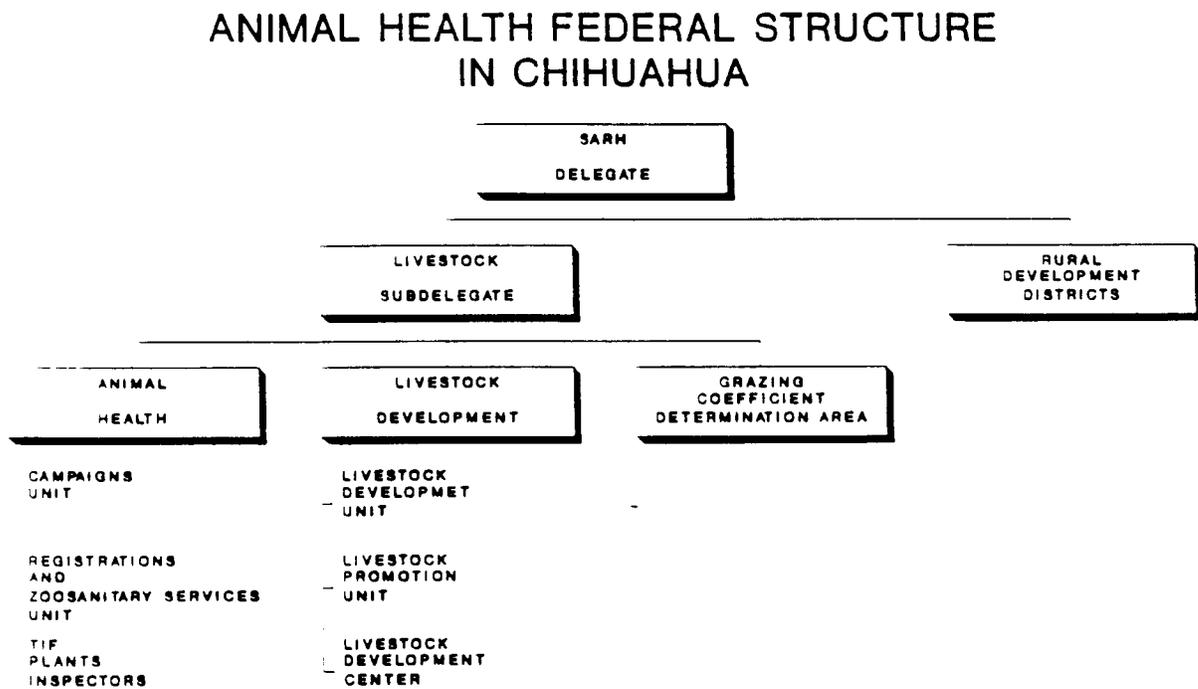
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- 6400 a 21999
- 22000 a 56299
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II. ANIMAL HEALTH INFRASTRUCTURE IN THE STATE

a) FEDERAL STRUCTURE

The Ministry of Agriculture and Water Resources (SARH) has a state delegation in Chihuahua. The delegation includes the livestock subdelegation, which covers the functions of animal health, livestock development, and establishing grazing coefficients. The organization chart is given in the figure below:



In addition, the state is divided into two Rural Development Districts (DDR) with the following technical staff coordinated by the livestock subdelegation.

Rural Development District (DDR)	Veterinary Staff
Juárez	1
Chihuahua	2
Ojinaga	1
Parral	1
Delicias	2
Jiménez	<u>1</u>
	8

The state has four diagnostic laboratories:

LABORATORY	AREA OF INFLUENCE	DIAGNOSIS
Chihuahua	Part of the State of Chihuahua	Salmonellosis and elementary tests
Cd. Delicias	Cd. Delicias dairy basin, Rosales, Meoqui, Sancillo, Julime, Camargo, Jiménez	Reference laboratory for brucellosis and tuberculosis; salmonellosis
Cd. Juárez	Northern part of the state	Salmonellosis and elementary tests
Nuevo Casas Grandes	Nuevo Casas Grandes and adjacent municipalities	Salmonellosis and elementary tests

Although the state has a laboratory that does classical swine fever diagnosis, when there are suspicious cases they are sent to the National Animal Health Diagnostic Center, located in the State of Mexico.

For international control of movements of livestock and animal products and by-products, there are three animal health inspection offices with official veterinary inspectors. The inspection offices will be described later.

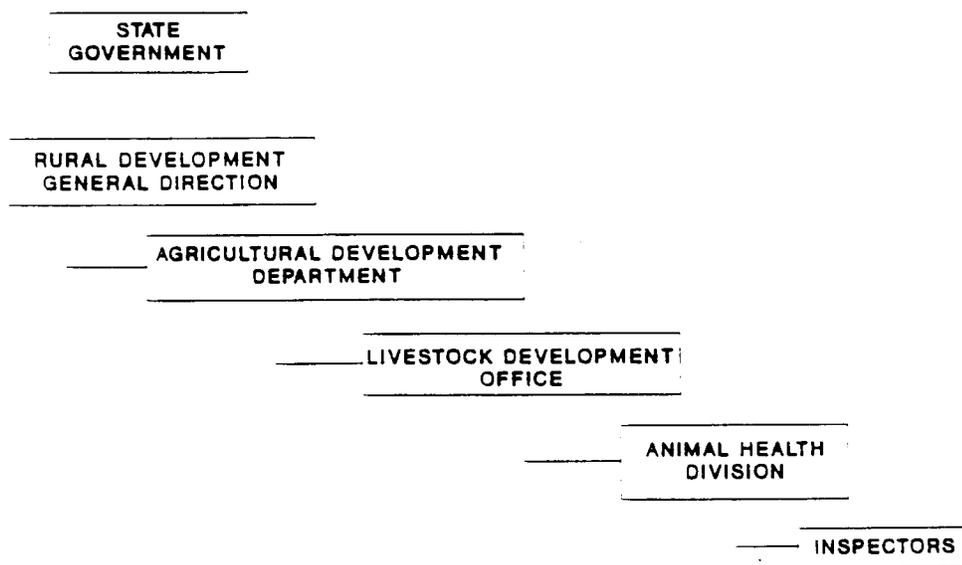
There are 10 checkpoints in the state for control of overland movements, all of which have official SARH staff to operate them.

Hog slaughtering and processing is done in Federal Inspection Standard (TIF) establishments, which comply with international sanitary requirements and have official veterinary sanitary officers, and supervision and certification by the countries to which they export. The state is the location for TIF plants Nos. 5, 55, 79, 90, 125, and 139.

b) STATE STRUCTURE

The animal health structure of the State of Chihuahua is described in the following organization chart:

STATE GOVERNMENT CHART



The Animal Health Division is headed up by a veterinarian, who coordinates everything related to animal health, with 19 inspectors who perform surveillance activities at the checkpoints for controlling movements of animal products and by-products, of which three are operated by the state government in coordination with SARH and the Chihuahua Regional Livestock Producers' Union.

There are 26 municipal and 5 private abattoirs for slaughtering hogs, at which epizootiological surveillance is conducted.

c) TECHNICAL AND PROFESSIONAL SCHOOLS

In the State of Chihuahua there is a School of Veterinary Medicine and Animal Husbandry at the University of Cd. Juárez.

In addition, there are 6 agricultural technical schools, 4 brigades, and a research center. The brigades are groups of graduates from the agricultural technical schools who give support to production and technical assistance in rural communities.

III. CAMPAIGN ACTIVITIES AND STRUCTURE

a) PHASES

The decree published in the Federal Official Daily of March 25, 1980 established the National Campaign for the Control and Eradication of Hog Cholera, now known as classical swine fever, as general, mandatory, and permanent throughout the entire country.

According to Official Mexican Standard NOM-005-200/1993, the National Classical Swine Fever campaign comprises three zones or stages:

Control zone.- This stage includes the states in which CSF is enzootic, and therefore the following procedures must be applied: vaccination; control of movements of swine and swine products and by-products; and epidemiological surveillance, notification of cases or outbreaks, diagnosis, and follow-up until each of the cases has been resolved.

Eradication zone.- This stage includes the states where CSF has not occurred for 12 months and the procedures described for the control zones have been followed, in addition to applying the following procedures: suspension of CSF vaccination; prohibition of the use, distribution, and marketing of CSF vaccines; strict control of interstate movements of swine and swine products and by-products; and epizootiological surveillance.

Free zone.- This stage includes the states in which CSF has not occurred in the last 24 months and the procedures for eradication zones have been followed and applied, in addition to the following procedures: prohibition of the use, distribution, and marketing of CSF vaccines; strict control of interstate movements of swine and swine products and by-products; and constant epizootiological surveillance, which is carried out through serological sampling at least every 12 months.

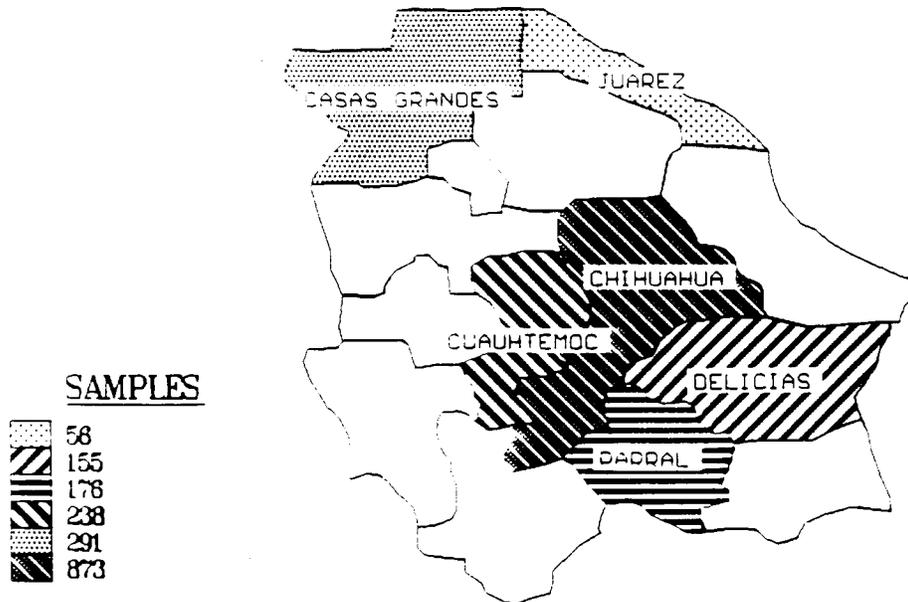
b) CHRONOLOGY OF THE CAMPAIGN IN THE STATE

The last outbreak of classical swine fever in the state was in 1989 in the municipality of Cd. Cuauhtémoc, with vaccination prohibited in 1989; the eradication phase began in 1990, and finally the state was declared free of classical swine fever with publication in the Federal Official Daily on September 27, 1993.

c) EPIDEMIOLOGICAL SAMPLING

To determine technically that the classical swine fever virus was not present in Chihuahua, an epidemiological survey was made from June to September 1992, for which a total of 1,789 sera were collected.

SEROLOGICAL SAMPLING 1992



Of the total of these samples, 30 showed evidence of CSF antibodies, and were from the municipalities of Chihuahua, Casas Grandes, Cuauhtémoc, Delicias, and Parral. In the absence of clinical signs, the presence of antibodies was attributed to their persistence in adult animals, since the sampling was done basically in the abattoirs and included culled females with ages varying from 4 to 5 years.

In June 1993, another survey was made in the municipalities where antibodies had been present, with a total of 941 sera collected. The results obtained were 100% negative for the presence of classical swine fever antibodies, which demonstrated that they were not present in animals of less than three years of age.

d) RELATIONSHIPS BETWEEN PRODUCERS' ORGANIZATIONS, THE STATE GOVERNMENT, AND SARH

According to the draft of Mexican Official Standard NOM-700/1993, the state governments and SARH's delegations, together with the State Committees for Livestock Development and Protection, hog producers' associations and unions, swine owners, meat processors, accredited veterinarians, the pharmaceutical industry, merchants, middlemen, transporters, and anyone related to the swine industry are responsible for application and enforcement of the standard.

The General Division of Animal Health (DGSA) coordinates participation by the various authorities in the activities involved in conducting the epizootiological studies required for declaring a zone free of classical swine fever.

The General Division of Animal Health (DGSA) works in coordination with the authorities responsible for the establishments where swine and swine products and by-products are slaughtered or processed to monitor the application of the sanitary and documentary controls required for the movement, distribution, and slaughter of hogs throughout the entire country.

The state governments participate in the implementation, remodelling, adaptation, construction, and operation of intrastate and interstate animal health inspection stations. At these checkpoints the provisions and procedures of the Standard for movements of swine and swine products and by-products are applied.

The State Livestock Development and Protection Committees, the classical swine fever campaign subcommittees, hog producers' unions and associations, and the processing industry sector linked to the swine industry in this country, in coordination with SARH and the state governments, participate in strengthening the campaign's activities, including those related to the public information program.

e) FINANCING

The classical swine fever campaign in the State of Chihuahua was funded by the industries related to swine production. A total of N\$28,000 was raised. This was used for the purchase of prefabricated booths for controlling movements of livestock and animal products and by-products.

In addition, through the Ministry of Agriculture and Water Resources (SARH), the federal government contributed all the operating expenses for conducting the campaign, such as: vehicles, per diem, materials, technical personnel to take and ship samples, processing them in SARH laboratories, and the reagents.

Lastly, the state government provided technical personnel for animal health inspection at quarantine control points, airports, and bus and train stations.

IV. SURVEILLANCE AND STATISTICAL PROGRAMS

a) CLINICAL SURVEILLANCE ON FARMS

In September 1994, a year will have passed since the State of Chihuahua was declared free of classical swine fever, and at that time an epidemiological survey will be conducted to confirm that the CSF virus is not present. The nine largest municipal abattoirs in the state will be sampled during a four-month period.

As mentioned in the next section, a campaign against Aujeszky's disease is being conducted in Mexico, for which epizootiological surveys are done. Advantage is taken of these samples to run CSF tests simultaneously, thus doing additional surveillance besides that done exclusively for classical swine fever.

In regions, states, or areas under eradication or free of classical swine fever, it is the responsibility of the federal and state governments, as well as swine owners or producers and accredited veterinarians, to maintain epidemiological surveillance for evidence of suspicious cases or confirmed outbreaks of classical swine fever.

This surveillance is done by inspection of hogs and swine products and by-products, and of the official documentation required for their movement from control or eradication areas into eradication or free areas, and by means of virological monitoring done by the federal and state governments and organized producers.

b) DISEASE NOTIFICATION

In Mexico a number of diseases require immediate, mandatory notification. These include all those classified as exotic to this country, those covered by an official control and eradication campaign, and all other diseases covered by the A list of the International Office of Epizootics (OIE) and some on the B list that are deemed to be of economic importance.

At present there are 8 control and eradication campaigns in effect:

- Classical swine fever
- Aujeszky's disease
- Avian salmonellosis
- Newcastle disease
- Boophilus sp.* cattle ticks
- Bovine paralytic rabies
- Bovine tuberculosis
- Bovine brucellosis

It is important to mention that in a state that is free of the diseases in question, these are classified as exotic, so the responsibility for control and eradication if an outbreak is detected falls to the National Animal Health Emergency System (DINESA). For this purpose, in addition to routine serological sampling, it has a surveillance system with support from the regional offices of the Mexican-American Commission for the Prevention of Foot-and-Mouth Disease and other Exotic Animal Diseases (CPA). Emergency responses are described in greater detail in section VII.

In the case of an outbreak on a farm or a positive result from a viral isolation in a laboratory, it will be the obligation of both the owner of the swine and the accredited veterinarian and/or the person responsible for the farm or the head of the laboratory, as the case may be, to notify SARH immediately.

c) DIAGNOSTIC LABORATORIES

Surveillance programs are carried out through the national reference laboratories, which are the National Center for Animal Health Diagnosis (CENASA) and the laboratory of the Mexican-American Commission for the Prevention of Foot-and-Mouth Disease and other Exotic Animal Diseases (CPA), in addition to the 8 laboratories accredited for the diagnosis of classical swine fever located throughout the country, which give notification if an outbreak is suspected or merely maintain surveillance regarding the absence of classical swine fever in free states.

V. EPIDEMIOLOGICAL TRACING CAPABILITY

a) FROM ABATTOIRS TO FARMS OF ORIGIN

In the federal inspection type (TIF) abattoirs, there is a system that allows retrospective tracing of animals, when necessary. Each abattoir has an official veterinarian that inspects the animals ante and post mortem.

Each lot of animals is placed in a pen, with a slaughter program applied pen by pen. If an abnormality is detected during the inspection, the lot to which the animal belongs can be determined and through the plant's records the farm of origin can be identified.

When slaughter is done at municipal or private abattoirs, control of entry is done by the shipping waybill, by means of which the origin of the animal can be determined in the event that an abnormality is detected during the inspection.

b) FROM FREE STATES TO CONTROL ZONES

All movements of swine products that enter the state coming from control zones are inspected physically and the documents are checked at the posts for controlling movements that protect the state. Their duties and locations are described in the next section.

In addition, all products must come from authorized federal inspection type (TIF) plants and the meat from which they are processed must in turn come from TIF abattoirs. It is therefore possible to know from the sanitary waybill what the TIF plant of origin was and through the lot number the abattoir and farm of origin of the animals can be determined.

It should be mentioned that the entry of live hogs from control zones into free zones is not allowed, thus avoiding the greatest source of risk.

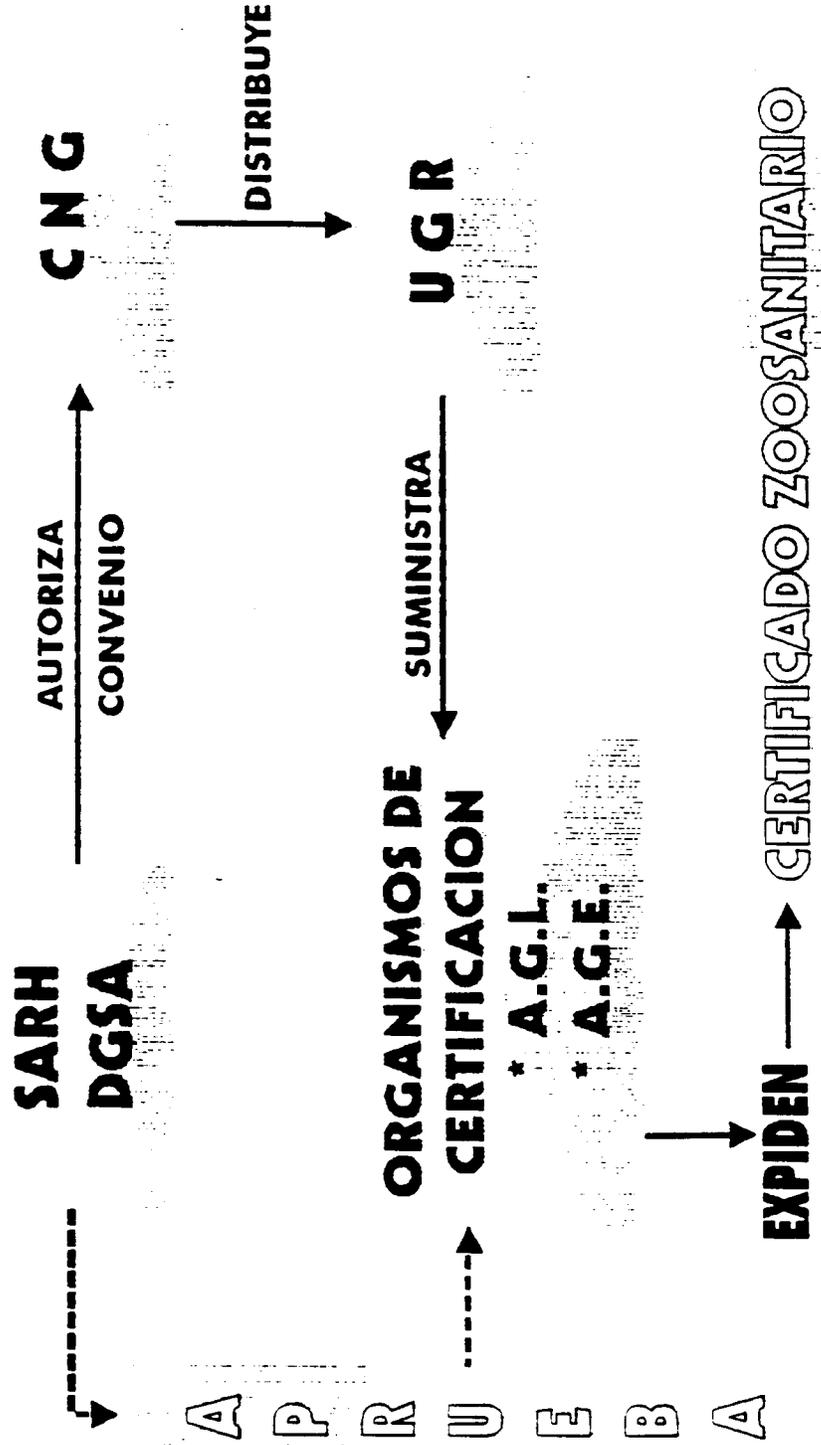
VI. CONTROL OF MOVEMENTS

a) STATE

The Ministry of Agriculture and Water Resources (SARH), represented by the Animal Health Division (DGSA), through an agreement with the National Livestock Producers' Confederation (CNG) authorizes the distribution of animal health certificates to the Regional Livestock Producers' Union (UGR), which supplies these certificates to certification agencies approved by SARH. These are usually the local livestock producers' associations (AGL) and ejido livestock associations (AGE), and they actually issue the animal health certificates for control of movements of livestock and animal products and by-products, signed in all cases by a veterinarian in charge, who may be official or accredited for control of movements.

**SUBSECRETARIA DE GANADERIA
DIRECCION GENERAL DE SALUD ANIMAL**

MANEJO Y CONTROL DEL CERTIFICADO ZOOSANITARIO



The various federal and state offices and agencies that intervene in the control of animal movements are:

State government.- Gives authorization for the entry of animals of various species; at the inspection posts reviews the documentation for animals entering and leaving the state; and through the state judicial police checks that vehicles transporting livestock and animal products and by-products have the proper documentation.

Federal Government.- Handles, through SARH: import and export permits; issuance of certificates required for each species to process the sanitary waybill; issuance and distribution of animal health certificates to non-official certification agencies; and review of documents and inspection of livestock and when necessary application of quarantine measures at the control posts, as well as conducting surveillance of vehicles to ensure their cleanliness to do disinfection.

Livestock Producers' Union.- Authorizes movements into and out of the state; reviews the documentation required for issuance of the sanitary waybill and issues the animal health certificate.

For control of movements within the state the following intervene:

Local livestock producers' associations.- Issue the shipping waybill; extend letters authorizing movements of livestock out of the state.

Livestock inspectors.- Issue the shipping waybill.

Municipal council presidents.- Provide support for activities to control movements through the municipal security forces, which conduct sporadic reviews of documents.

The shipping waybill is for movements within the state and verifies the ownership of the animals.

The animal health certificate is for movements of livestock and animal products and by-products outside the state and is used throughout all of Mexico, and as its name indicates, verifies that the animal is healthy.

The animal health requirements for marketing swine products and by-products from classical swine fever free and eradication zones are:

Movements coming from free zones.- Movements of products and by-products coming from zones that are free of classical swine fever may be made without restrictions, unless they go through a control zone, in which case the movement must be made in vehicles which have been sealed with metal straps.

Movements between eradication zones.- Movements of products and by-products coming from eradication zones and having as their destination another eradication zone may be made without restrictions, unless they go through a control zone, for which there are two possibilities: The

first is that the company of origin must be a federal inspection type (TIF) establishment and be authorized by the General Division of Animal Health to market swine products and by-products into classical swine fever free and eradication zones, in which case the movement must be made in vehicles which have been sealed with metal straps; and the second is that for companies of origin that do not meet the above, including non-TIF companies, the movement must be made by air on a direct route.

Movements from eradication zones to free zones and from control zones to eradication and free zones.- Movements of products and by-products coming from eradication zones and having as their destination free zones and those coming from control zones with eradication or free zones as their destination must be made by federal inspection type establishments that meet the following requirements: have a current TIF registration; be expressly authorized by the General Division of Animal Health to market their products and by-products into classical swine fever free and eradication zones; transportation must be in vehicles sealed with metal straps; and finally, in making their products and by-products, the companies may use raw materials from free zones or countries, eradication or control zones, which must come from federal inspection type abattoirs.

Companies must follow the heat processing requirements and the movement and identification procedures described below:

- 1.- Swine products or by-products to be marketed in classical swine fever free and eradication zones must receive the following heat processing: 68.9°C for 30 minutes or 80.5° C for 3 minutes.
- 2.- After the heat processing, the plant's veterinary health official must supervise the packing and storage of the products by lots.
- 3.- To authorize the movement of swine products and by-products into classical swine fever free and eradication-phase zones, the plant's veterinary health official will issue the corresponding sanitary waybill and ascertain that the trucks or transport units for the finished products are properly sealed with metal strapping when they leave the plant of origin.
- 4.- Upon the arrival of shipments of swine products and by-products in the destination state, the official inspection personnel duly authorized by SARH and assigned to the quarantine control point at the state's point of entry shall comply strictly with the following inspection procedure: review the sanitary waybill; verify that the strapping has not been removed; and finally, take off the strapping and inspect the cargo to be sure that it corresponds to what is shown on the sanitary waybill.
- 5.- In shipments of products and by-products which must go through classical swine fever free or eradication-phase states, the official personnel duly authorized by SARH and assigned to the quarantine points at these states' points of entry and exit will only review the sanitary waybill covering the movement, place their review seal and signature on the reverse side of this document, and ascertain that the strapping on the vehicle has not been removed, and in consequence it will be permitted to transit freely.

There are 9 Federal Inspection Type (TIF) plants authorized to market swine products and by-products into CSF free and eradication zones.

b) NATIONAL AGRICULTURAL QUARANTINE SYSTEM

Its purpose is to establish in a comprehensive, institutional form the strategic base for application of quarantine services, which are carried out for the protection of the national agricultural, forestry, and livestock patrimony. These services are focussed on: preventing the entry of exotic pests and diseases into the country; contributing to control and eradication of any that enter; supporting national plant and animal health campaigns; and maintaining areas free of plant and animal diseases and pests.

The National Agricultural Quarantine System comprises external and internal quarantine systems. The external quarantine system includes all the activities directed towards preventing the entry of diseases into country, whereas the internal quarantine service is in charge of the activities involved in preventing the diseases present within the country from spreading from infected areas into free areas.

Internal quarantine service.- One of the most important elements for the success of plant and animal health campaigns is instrumentation of effective quarantine control by establishing internal check points (quarantine posts and stations) on the main highways throughout the country, where animals and agricultural products involved in movements are inspected, in addition to verifying compliance with the official rules so as to ensure that such movements will not represent a plant or animal health risk.

The inspection posts that control the entry and exit of animals and agricultural products and by-products into and out of the state are the following:

NAME	LOCATION	PERSONNEL
Escalón	Km 74 highway Jiménez-Torreón, Coah.	8 State government
Los Charcos	Km 34 highway Parral-Durango	2 - 6 - 1 SARH-S.G.-UGRC
La Casita	Km 3.2 highway Parral-Guadalupe & Calvo, Chih.	2 SARH
Jiménez	Km 6 highway Jiménez-Savaiza	4 - 4 - 1 SARH-S.G.-UGRC

S.G.- State Government

UGRC.- Chihuahua Regional Livestock Producers' Union

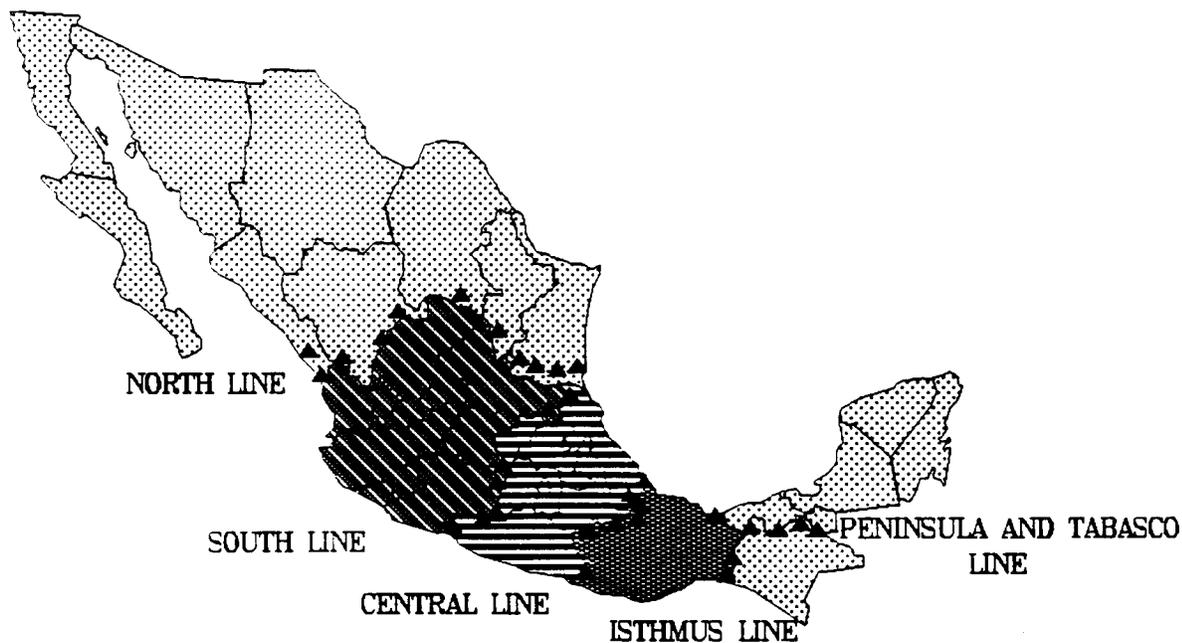
In addition, there are the following lines of dipping vats which in the event of an animal health emergency could serve as control checkpoints:

NAME	LOCATION	PERSONNEL
Dolores	Highway Dolores-Guadalupe & Calvo, Chih.	1 SARH
Morelos	Población Morelos, Chih.	1 SARH
Tohayana	Poblado Tohayana, Guadalupe & Calvo	2 SARH
Bahuichivo	Bahuichivo, Urique, Chih.	1 SARH
Temoris	Temoris, Chih. Municipality of Guazapares	1 SARH
Chinipas	Chinipas, Chih.	1 SARH

In addition to the above, for the purpose of optimizing resources and channeling them into a reliable, permanent internal quarantine system which can provide sufficient inspection capacity and better protection for disease-free regions, a project was developed based on the establishment of regional quarantine lines.

These lines are made up of 46 installations, including quarantine posts and stations, located around regions made up of various states having similar plant and animal health characteristics, which because of their geographic location, communications, and plant and animal transit routes, have adequate control of movements of plants, animals, and agricultural products and by-products.

QUARANTINE INFRASTRUCTURE



The quarantine line that provides protection for our country's northern states and Sinaloa and Durango is the northern region quarantine line, made up of the following inspection points:

NORTHERN REGION QUARANTINE LINE

NAME	LOCATION
La Concha	Km 960 Fed Highway 15 at Nay.-Sin. borders
Concordia	Km 44 Fed Highway 40 Mazatlán, Sin.-Durango, Dgo.
Coyotes	Interoceanic Highway Km 96
Vicente Guerrero	Fed Highway 45 Durango-Fresnillo, Zac.
Santa Clara	Fed Highway 49 Cuencame-Durango-Fresnillo, Zac.
Tanque Escondido	Fed Highway 45 Saltillo-Zacatecas-Coahuila
San Roberto	Highway Matehuala-Saltillo, Coah.-Monterrey, N.L.
Caseta No. 21 (Tula)	Highway 101 Victoria-San Luis Potosí
Antiguo Morelos	Km 3.5 Highway 85 Antiguo Morelos-Mante
Caseta No. 30 (Rayon)	State highway Manuel-Ebano, S.L.P.
Altamira	Km 24.5 Highway 180 Tampico-Est. Manuel

It is important to point out that when a state enters the classical swine fever eradication phase,

the Quarantine Control Division notifies the airlines so that on flights made by these companies with airports in the free states as their destination, they will eliminate any pork products from their menus. For example:

ORIGINAL PRODUCT	SUBSTITUTION
Canadian bacon	Smoked turkey
Pork sausage	Turkey sausage
Ham made from pork	Ham made from Turkey

External quarantine system.- This type of quarantine is also considered to be the first sanitary barrier and is for the purpose of conducting actions to prevent the entry of pests and diseases from other countries; to do so, compliance with the plant and animal health standards and requirements applicable to importations of animals, plants and agricultural products and by-products in ports, airports, and border crossing points is verified.

At present, both physical inspection and verification of documents is done at 18 seaports, 15 airports, and 17 inland border crossing points, with technicians trained in the health, livestock, and plant areas.

In addition to the inspection offices on the northern and southern borders, each state has its own plant and animal health inspection offices to control movements at border crossing points, airports, and seaports, which in the State of Chihuahua are as follows:

**PLANT AND ANIMAL HEALTH INSPECTION POINTS
BORDER CROSSING POINTS, AIRPORTS, AND SEAPORTS**

INSPECTION OFFICE	BORDER CROSSING POINT	AIRPORT	PORT
Cd. Juárez (1)	*	*	
Palomas	*		
Ojinaga	*		
Chihuahua		*	

(1) Central inspection office providing inspection service to others nearby having fewer importation movements.

VII. EMERGENCY RESPONSES

In Mexico a subsystem has been established for surveillance of exotic diseases based on the Mexican-American Commission for the Prevention of Foot-and-Mouth Disease and Other Exotic Animal Diseases (CPA). This system includes the three health defense barriers.

The activities of the first barrier include maintaining a data bank on world occurrence of diseases based essentially on information from the International Office of Epizootics (OIE) and other publications. It also provides information on possible risks derived from the importation of products and animals, contributing to the establishment of adequate sanitary requirements.

This system also has qualified field personnel, a high security diagnostic laboratory, and a system for data entry and analysis.

To conduct epizootiological surveillance activities, investigations of suspicious exotic disease cases, and information and training activities, the CPA has 8 regional coordinating offices and 15 zone coordinators strategically located throughout the country. In this way a constant presence is maintained and emphasis is given to the second defense barrier: early problem detection.

If a positive case of an exotic disease is detected, the National Animal Health System (DINESA) is activated, performing the functions of disease control and eradication (activities of the third defense barrier).

One of DINESA's most important activities is setting up State Animal Health Emergency Groups (GEESA). To form a GEESA, a simulation exercise course is given on exotic diseases to selected veterinarians in the state. The next phase is a second course given to participants who showed aptitudes for organization, leadership, and good decision-making under pressure during the first course.

The function of a GEESA is to act quickly, effectively and in an organized way in the event of an animal health emergency. To date 17 states groups have been formed with 425 veterinarians. In Chihuahua, the GEESA was created in March 1994.

Contingency funds.- There are no contingency funds in the state in case an outbreak of classical swine fever should occur. However, if a problem should arise, special contributions would be made and both the industries related to swine production, and the state and federal governments, through SARH's state delegation, in coordination with DINESA, would conduct control and eradication activities.

VIII. CONCLUSIONS

The purpose of this study is international recognition of disease and pest free zones within the framework of the North American Free Trade Agreement (NAFTA). The regionalization document proposed by the United States during the Tripartite Meeting on Risk Analysis and Regionalization held in August 1993 is used as the basis for such recognition.

Based on the above, and given that:

1. The State of Chihuahua is bordered on the west by Sonora, which is a classical swine fever free state; and on the east and south by the States of Coahuila and Durango, which apply vaccination but where the last cases occurred in 1984 and 1990, respectively.
2. The last case occurred in 1989, the state having been declared officially free on September 27, 1993.
3. Vaccination was officially suspended in 1989.
4. Strict control of movements is maintained at points of entry into the state and, in addition, there are natural barriers that contribute to preventing the introduction of diseases.
5. Importation of live hogs into the state is prohibited and swine products are moved under conditions that ensure health safety.
6. Periodic serological sampling is conducted and there is an adequate epidemiological surveillance system.
7. In the event of any cases of classical swine fever, the policy calls for sanitary slaughter.
8. The number of existing farms is known and statistics are kept on the importation of products at the control posts.

Recognition of the State of Chihuahua as classical swine fever free zone in risk category R₁ is requested.

APPENDIX 1

Risk analysis of the reintroduction of classical swine fever into the state.