SECRETARIA DE AGRICULTURA
Y RECURSOS HIDRAULICOS

SET 26 1994

Subsecretaría de Ganadería
Dirección General de Salud Animal

Número de Oficio: 1485
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México, D. F., 23 septiembre 1994.

SRA. JOAN SILLS
Acting Director Area I APHIS/USDA
Departamento de Agricultura de los Estados Unidos
Sierra Nevada No. 115
Lomas de Chapultepec
11000 México, D. F.

Le ruego encontrar adjunto la información suplementaria solicitada en el cuestionario conjunto Canadá-Estados Unidos para el reconocimiento de las zonas libres de fiebre porcina clásica en México.

Le ruego enviar esta información a las oficinas centrales de APHIS/Veterinary Services con nuestra solicitud de concreción del reconocimiento oficial por parte del USDA de los Estados de Baja California, Baja California Sur, Chihuahua, Sinaloa y Sonora como libres de fiebre porcina clásica.

Con mis cordiales saludos.

Atentamente
SUFRAGIO EFECTIVO. NO REELECCION
EL DIRECTOR GENERAL

DR. HECTOR CAMPOS LOPEZ

c.c.p. Dr. Gustavo Reta Pettersson -Subsecretario de Ganadería
HCL/esg.

SUPPLEMENTARY INFORMATION FOR THE INTERNATIONAL RECOGNITION OF CLASSICAL SWINE FEVER FREE ZONES IN MEXICO

México / september 1994

SUBSECRETARIA DE GANADERIA
Dirección General de Salud Animal

SARH

SUPPLEMENTARY INFORMATION REQUIRED TO ASSESS THE RISK OF HOG CHOLERA FROM SWINE IN SONORA

National Veterinary Services of Mexico

A. Organization and structure of veterinary services

1. National Veterinary Services
Please provide an organogram (or organizational chart) including numbers, positions and numbers of vacancies and describe the role of veterinarians in establishing national and state animal health policy.

R. The Animal Health Division's structure is given on pages 7 to 9 of its 1993 Annual Report. All of the positions are held by veterinarians except for the following, which are held by administrators: Technical Secretary, Programming Department, Animal Health Information Department, Administrative Assistant Director, Human Resources Department, and Finance and Materials Management Department. As to the role played by veterinarians in establishing animal health policies, the National Animal Health Technical Advisory Council (CONASA) and the National Advisory Committee on Animal Health Protection Standards (CONAPROZ) were created to perform the functions that are described on pages 40 and 41 of the Animal Health Division's 1993 Annual Report. This document is attached (Appendix 1), as well as the Animal Health Division's Organization Manual (Appendix 2), which sets forth the Division's objectives, legal framework, powers, organic structure and the functions of its different areas.

2. Sub-national veterinary services -- emphasis on Sonora, Baja California, Chihuahua and Sinaloa.
Do the above-listed states have a full-time state veterinary service? Please provide organograms (or organizational charts), including numbers and positions.

R. This is included in the documents for each state submitted during the Tripartite Animal Health Meeting, under item II, **Animal Health Infrastructure in the State.**[1]

3. Other providers of veterinary services.
Description of any linkage with other providers of veterinary services.

R. Page 30 of the Animal Health Division's 1993 Annual Report (Appendix 1).

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[1] Hereinafter, any mention of the *document or documents* refers to the documents entitled: Characterization of the State of Sonora (Baja California, Baja California Sur, Chihuahua or Sinaloa) for International Recognition as a Classical Swine Fever Free Zone.

University of Chiapas.

Federal District
Xochimilco: Department of Agricultural and Livestock Production of the Metropolitan Autonomous University.
Mexico City: School of Veterinary Medicine and Animal Husbandry of the National University of Mexico.

Durango
El Mezquital: School of Veterinary Medicine and Animal Husbandry of Juárez University of the State of Durango.

Guanajuato
León: School of Veterinary Medicine and Animal Husbandry of the Bajío University.

Guerrero
Ciudad Altamirano: School of Veterinary Medicine and Animal Husbandry of the University of Guadalajara.

Jalisco
Guadalajara: School of Veterinary Medicine and Animal Husbandry of the University of Guadalajara.
Ciudad Guzmán: School of Veterinary Medicine and Animal Husbandry of the University of Guadalajara.

State of Mexico
Cuautitlán Izcalli: Cuautitlán School of Advanced Studies, National University of Mexico.
Toluca: School of Veterinary Medicine and Animal Husbandry of the University of the State of Mexico.

Michoacán
Morelia: School of Veterinary Medicine and Animal Husbandry of San Nicolás de Hidalgo Michoacana University.

Nayarit
Compostela: School of Veterinary Medicine and Animal Husbandry of the University of Nayarit.

Nuevo León
Monterrey: School of Veterinary Medicine and Animal Husbandry of the University of Nuevo León.
Guadalupe: School of Veterinary Medicine and Animal Husbandry of the Centers for University Studies.

Oaxaca
Oaxaca: School of Veterinary Medicine and Animal Husbandry of Benito Juárez University.

Puebla
Puebla: College of Veterinary Medicine and Animal Husbandry.
Tecamachalco: Veterinary Medicine and Animal Husbandry of the University of Puebla.

Querétaro
Amazcala, El Marquéz: School of Veterinary Medicine and Animal Husbandry of the University of Querétaro.

Sinaloa
Culiacán: School of Veterinary Medicine and Animal Husbandry of the University of Sinaloa.

Sonora
Ciudad Obregón: Department of Veterinary Medicine and Animal Husbandry of the Sonora Technological Institute.

Tabasco
Villahermosa: School of Veterinary Medicine and Animal Husbandry of Juárez University of Tabasco.

Tamaulipas
Ciudad Victoria: School of Veterinary Medicine and Animal Husbandry of the University of Tamaulipas.
Reynosa: Mexico North America University.

Veracruz
Tuxpan: School of Veterinary Medicine and Animal Husbandry of Veracruz University.
Veracruz: School of Veterinary Medicine and Animal Husbandry of Veracruz University.

Yucatán
Mérida: School of Veterinary Medicine and Animal Husbandry of the University of Yucatán.

Zacatecas
Calera de Víctor Rosales: School of Veterinary Medicine and Animal Husbandry of the University of Zacatecas.

Mexico also has the following schools that are not registered in the World Health Organization's directory:

Baja California
Ensenada: University of Xochicalco.

Puebla
Villa Juárez: School of Veterinary Medicine and Animal Husbandry of the University of the Sierra of Xicotepec.

Tlaxcala
Huamantla: School of Veterinary Medicine and Animal Husbandry of the University of Tlaxcala.

2. Number of full-time government veterinarians (national and sub-national).

R. There is a total of 2,700 veterinarians employed in public service.

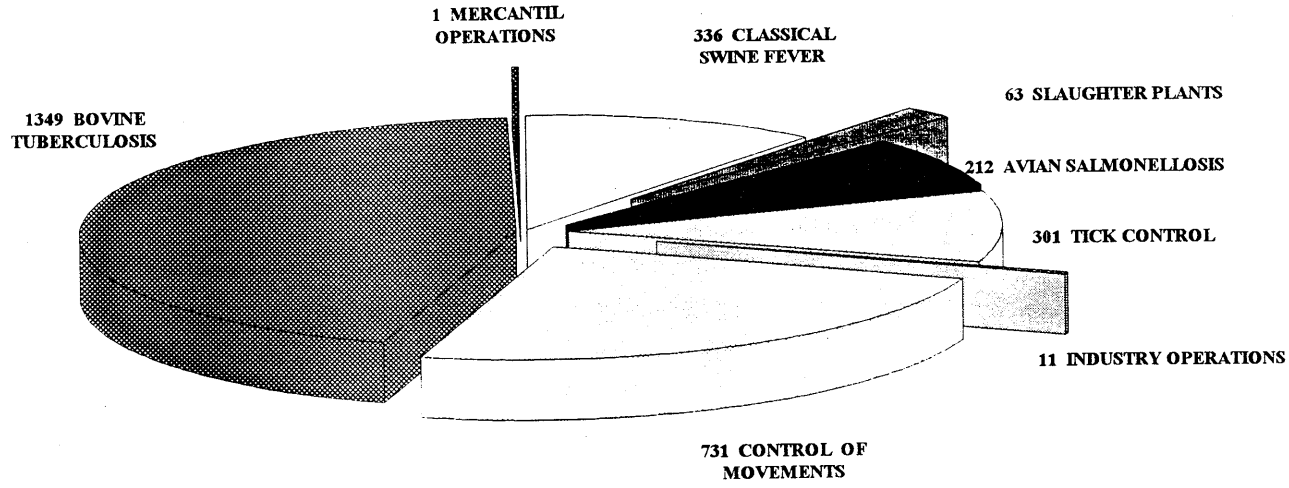
3. Number of part-time government veterinarians (national and sub-national).

R. This has not been defined, since the employment contract for veterinarians working for the Ministry of Agriculture and Water Resources (SARH) does not specify a work schedule; this is determined according to the needs of the position occupied by each veterinarian.

4. Number of private veterinarians authorized to perform official veterinary functions. Please provide a list of accredited veterinarians per function.

R. As of August 5, 1994, there was a total of 3,004 veterinarians, whose areas of accreditation are shown in the following chart.

ACCREDITED VETERINARIANS BY ACCREDITATION AREA



The National Directory of Accredited Veterinarians is published annually. The latest edition is attached (Appendix 3).

5. ANIMAL HEALTH

Number of veterinarians associated with the farm livestock sector on a majority time basis in a veterinary capacity, by geographical area. (Show categories and numbers to differentiate staff involved in field service, laboratory, administration, import/export and other functions, as applicable).

R. There are 2,500 veterinarians working in laboratories, universities, and training institutions; 434 as inspectors in the import/export area, who are included under item No. 2, paragraph B, of this questionnaire. The staff involved in field work and administration are also included in that same paragraph.

6. VETERINARY PUBLIC HEALTH

Number of veterinarians employed in food inspection on a majority-time basis, by commodity.

R. There are 104 veterinarians shown in the Directory of Federal Inspection Type (TIF) Abattoirs and Inspectors, a copy of which is attached (Appendix 4).

7. Numbers of technical assistants employed by the veterinary services:

- involved with farm livestock.

R. There are technical assistants working with farm livestock but they are employed by the livestock owners, so there is no record of the number.

- in food inspection.

R. There are 27 technical assistants and 13 veterinarians with technical functions working in food inspection.

8. Total budgetary allocations to the veterinary services for the current and past two fiscal years (Sonora vs Mexico).

R.

BUDGET FOR THE LIVESTOCK SUB-SECTOR
1992-1994
(THOUSANDS OF NEW PESOS)

YEAR	TOTAL BUDGET	ANIMAL HEALTH	LIVESTOCK SUB-DELEGATION IN SONORA
1992	112,993.9	49,289.6	299.6
1993	122,732.1	59,906.7	109.0
1994	152,095.5	103,751.0	49.3

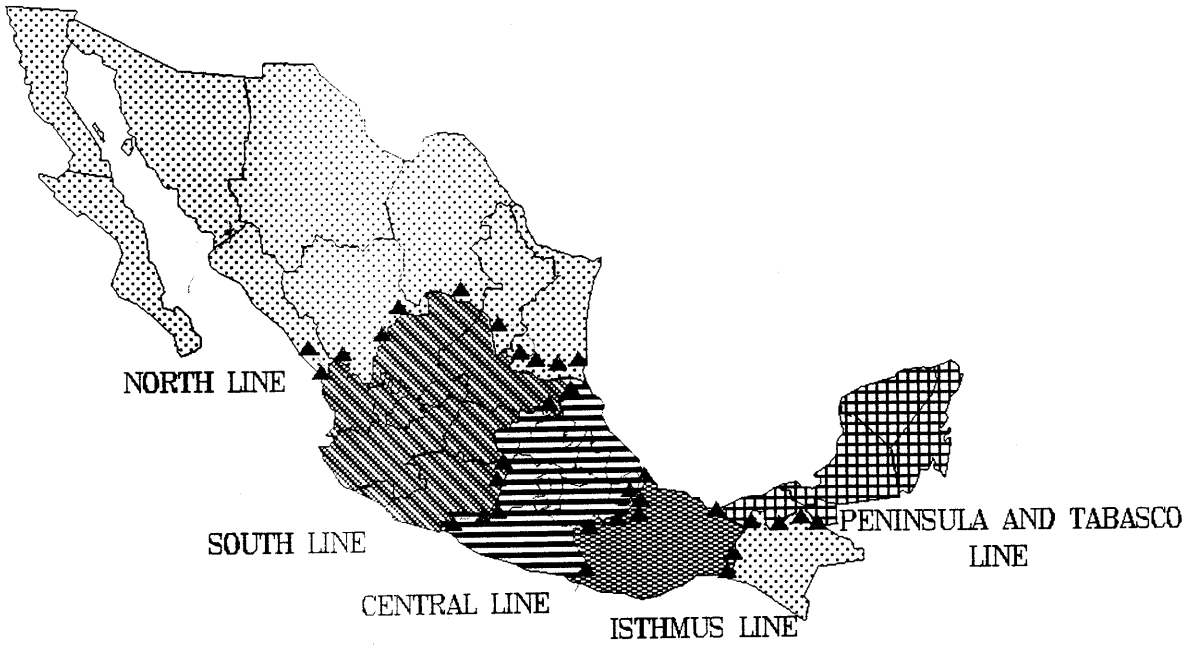
9. Summary of the forms of communication systems available to the veterinary services on a nation-wide and local area basis.

R. All the official veterinary services centers listed under the next item except livestock movement checkpoints have a telephone, fax, automobiles and/or pickups. In addition, some of the state delegations and the sterile screwworm fly production plant have small aircraft. The Mexico-U.S. Commission for the Prevention of Foot-and-Mouth Disease and Other Exotic Animal Diseases (EADC) is connected to INTERNET, since it has electronic mail. The Animal Health Authorizations Department has a computer network (MODEM) that connects it to the 11 remote units that issue the official animal health requirements document. Most of the livestock movement checkpoints making up the quarantine lines have radio communication and vehicles; those that are not a part of the quarantine lines may also have radio communication and if not, they have agreements with people having telephones in nearby towns to take messages and transmit any important communications to them. In addition, they are in direct contact with the authorities of the Rural Development Districts. Private courier services are also used. Finally, printed communications are also an important medium for communicating news and notifications (publications and government notices, amongst others).

10. Summary of the numbers and distribution of official administrative centers of the veterinary services (national and sub-national) in the country.

R. The official administrative centers of the state veterinary services are described in documents. At the national level, they are as follows:
- 46 livestock movement checkpoints which form the 5 quarantine lines:

QUARANTINE INFRASTRUCTURE



a) Quarantine line, northern region - comprising 11 checkpoints: 2 in Sinaloa, 3 in Durango, 1 in Coahuila, 1 in Nuevo León and 4 in Tamaulipas.
b) Quarantine line, central region - comprising 12 checkpoints: 4 in Guerrero, 2 in Michoacán, 2 in Querétaro, 1 in Guanajuato, 2 in San Luis Potosí and 1 in Veracruz.
c) Quarantine line, southern region - comprising 8 checkpoints: 5 in Oaxaca, 1 in Guerrero and 2 in Veracruz.
d) Quarantine line, isthmus region - comprising 5 checkpoints: 2 in Veracruz, 1 in axaca and 2 in Chiapas.
e) Quarantine line, Tabasco and peninsular region - comprising 10 checkpoints in Tabasco.

- 1,204 Units for issuing sanitary waybills distributed throughout the country.

- 252 Checkpoints for controlling the movement of animal products and by-products that are not a part of the quarantine lines and are distributed as follows: Aguascalientes 2, Baja California 6, Baja California Sur 3, Campeche 11, Chiapas 20, Chihuahua 10, Coahuila 8, Colima 9, Lagunera region 3, Durango 3, Guanajuato 10, Guerrero 9, Hidalgo 3, Jalisco 18, Michoacán 12, Nayarit 4, Nuevo León 5, Oaxaca 13, Puebla 10, Querétaro 5, Quintana Roo 14, San Luis Potosí 9, Sinaloa 4, Sonora 6, Tabasco 7, Tamaulipas 21, Veracruz 13, Yucatán 8 and Zacatecas 6.

- 81 International plant and animal health inspection stations (ports, airports and border crossing points): Aguascalientes 1, Baja California 6, Baja California Sur 4, Campeche 2, Coahuila 2, Colima 1, Chiapas 5, Chihuahua 3, Federal District 2, Durango 1, Guanajuato 1, Guerrero 2, Jalisco 2, State of Mexico 1, Michoacán 2, Nuevo León 3, Oaxaca 4, Puebla 1, Quintana Roo 5, San Luis Potosí 1, Sinaloa 3, Sonora 8, Tabasco 2, Tamaulipas 13, Veracruz 3, Yucatán 2 and Zacatecas 1.

- 11 ~~Remote~~ units for issuing the official animal health requirements document in: Baja California, Baja California Sur, Chiapas, 2 in Chihuahua, Coahuila, Lagunera Region, 2 in Nuevo León, Quintana Roo and Yucatán.

- 1 SARH-SEDESOL window for processing imports and exports of wildlife and wildlife products and by-products in the Federal District.

- 113 Federal-Inspection Type (TIF) plants distributed in: Aguascalientes 5, Baja California 4, Coahuila 7, Lagunera region 6, Chiapas 2, Chihuahua 12, Federal District 4, Durango 1, State of Mexico 4, Guanajuato 4, Hidalgo 1, Jalisco 5, Michoacán 2, Nuevo León 11, Oaxaca 1, Puebla 6, San Luis Potosí 2, Sinaloa 4, Sonora 15, Tabasco 1, Tamaulipas 4, Tlaxcala 2, Veracruz 3, Yucatán 3 and Zacatecas 4.

- 9 Central regional laboratories and 7 specialized diagnostic laboratories to support campaigns. On Page 32 of the Animal Health Division's 1993 Annual Report there is a map showing the distribution of the laboratories.

- 22 Accredited laboratories located in: Baja California, Chiapas, 3 in Durango, 2 in Guanajuato, 2 in Jalisco, Michoacán, 3 in Nuevo León, 2 in Puebla, 2 in Sonora, Tamaulipas, Veracruz and 3 in Yucatán.

- 1 Sterile screwworm fly production plant in Chiapas.

- The National Animal Health Verification Services Center (CENAPA) in Morelos.

- The National Animal Health Diagnostic Services Center (CENASA) in the State of Mexico.

-The high security laboratory of the EADC (Mexico-U.S. Commission for the Prevention of Foot-and-Mouth Disease and Other Exotic Animal Diseases) in the Federal District.

- 33 State Delegations, 1 in each state of Mexico and in the Lagunera region, which includes part of Durango and Coahuila.

C. Legislation

1. Animal health and veterinary public health.
Information is requested to verify the legal mandate to regulate AH and VPH issues on a national and regional basis with specific reference to:

- Animal and veterinary public health controls at national and regional (state) frontiers.

R. This is described in each document under item VI, **Control of Movements**. The official standard regarding movements is in the process of preparation.

- Control of endemic diseases of livestock.

R. As stated under item V, paragraph b), **Disease Notification**, in the documents, in Mexico there are a number of diseases that by law require immediate, mandatory notification. These include diseases that are considered to be exotic to this country, those covered by an official control and eradication campaign, as well as the rest of the diseases on the A list of the International Bureau of Epizootics (OIE) and some of those on the B list that are deemed to be of economic importance.
At present there are eight control and eradication campaigns:

Classical swine fever
Aujesky's disease
Avian salmonellosis
Newcastle disease
Boophilus sp. ticks
Bovine paralytic rabies
Bovine tuberculosis
Bovine brucellosis

Control of each of these diseases is regulated by the corresponding official standards.
It is important to mention that in a state that is free of these diseases, they are considered to be exotic diseases and therefore responsibility for control and eradication if an outbreak is detected would fall to the National Animal Health Emergency Mechanism (DINESA). For this purpose, in addition to routine serological sampling, it has a surveillance system centered around the regional coordinating offices of the Mexico-U.S. Commission for the Prevention of Foot-and-Mouth Disease and Other Exotic Animal Diseases (EADC).

- what does routine serological sampling detect - what data?

- Emergency powers for control of exotic disease outbreaks.

R. These are described in Article 6 of the agreement creating the National Animal Health Emergency System (SINESA) and in Title Two, Chapter VII, of the Federal Animal Health Law on the **National Animal Health Emergency Mechanism**. The latter is attached (Appendix 5), as well as the agreement creating the SINESA (Appendix 6).

- Compensation provisions for animal owners affected by disease control measures.

R. These are covered in the documents under item VII, **Emergency Responses**.

- Registration and use of veterinary pharmaceutical products, including vaccines.

R. All products and vaccines are registered with the Animal Health Division. In the case of classical swine fever and avian salmonellosis, vaccination is permitted only in states in the control phase. Vaccines may be applied only by official and accredited veterinarians in the respective campaigns. In the case of Newcastle disease, only vaccines that have been registered and certified as having been made with inactivated lentogenic strains may be used in free zones. This is described more fully in the official standards included in the documents.

A copy of current enabling legislation for federal animal health activities is requested.

R. A copy of the Federal Animal Health Law is attached (Appendix 5).

In addition, a copy of the following is requested:

- Agreement approving the hog cholera eradication program, 1980.

R. A copy is attached (Appendix 7).

- Government decree declaring 58 counties of northern Sonora free from hog cholera, 1983.

R. This was included in the appendices for each of the documents. In addition, a descriptive summary of the last outbreak of classical swine fever in Sonora published in the SINESA Bulletin is attached (Appendix 8)

- Agreement constituting the National Animal Health Emergency Surveillance System, 1988.

R. A copy is attached (Appendix 6).

- Manual of Regulations and Procedures for the Hog Cholera Campaign, 1990.

R. This was included in the appendices for each of the documents.

D. Monitoring and Audit Programs

1. Descriptive summary of any compliance unit which monitors the work of the veterinary services.

R. The General Auditing Section of SARH's Executive Office conducts a quarterly review of the progress and goals set for the whole Subsecretariat for Livestock, including the Animal Health Division.

2. Copies of official annual reports of the national (sub-national) veterinary services.

R. The report is attached (Appendix 1).

3. Copies of reports of official reviews of the function or role of the veterinary services which have been conducted within the last three years.

R. This information is handled by the General Auditing Section of the SARH Executive Office. A summary of the five-year review (1989-1993) of the National Classical Swine Fever Campaign conducted by the Auditing Section is attached (Appendix 9).

SWINE POPULATION

1. Date of most recent census of swine population.

R. The date of the most recent census was 1991 (INEGI 1991).

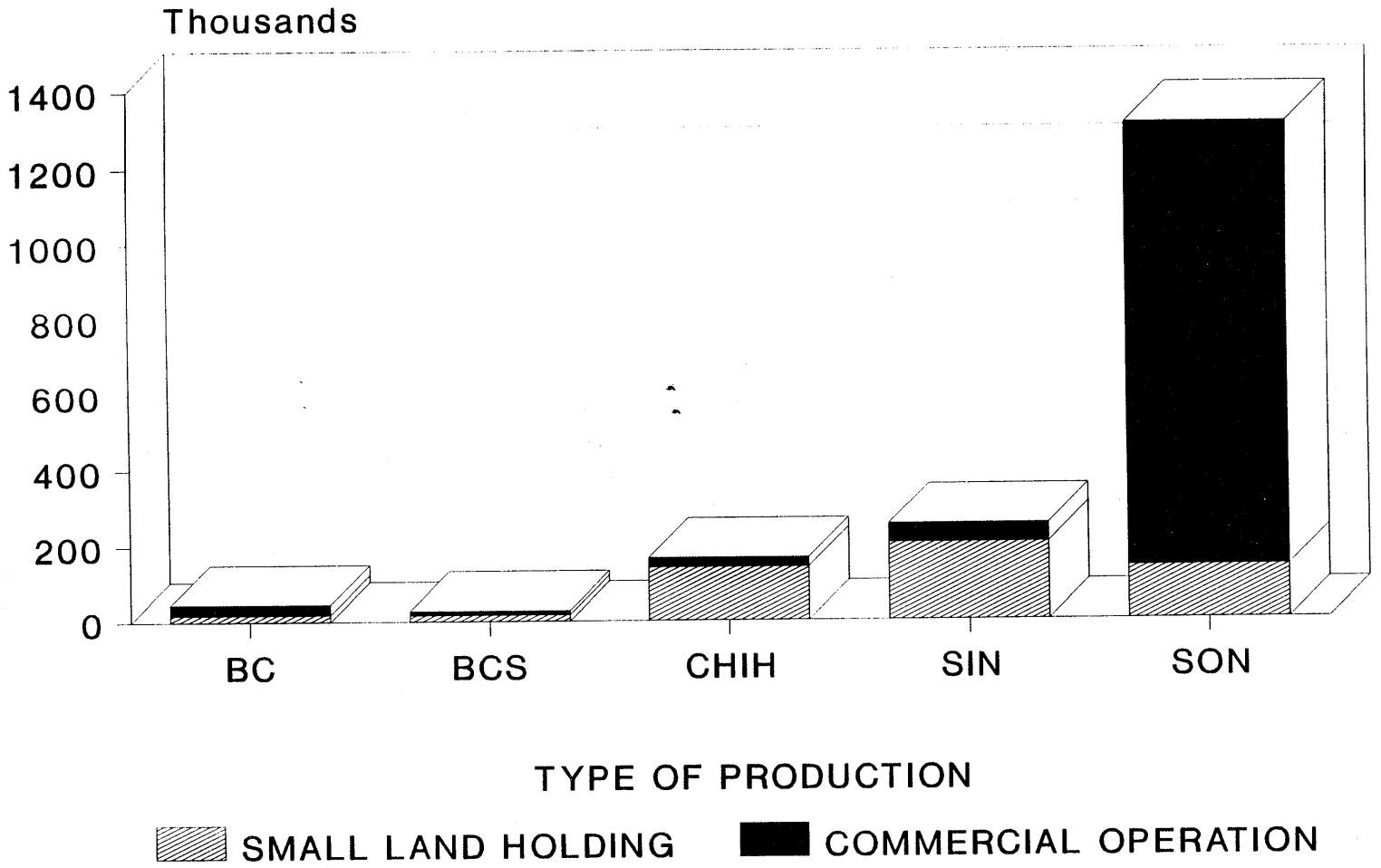
2. Most recent findings for national and Sonora state herds -- number of animals, number of herds, geographic distribution.

2.1 National herd:
- **commercial operations**
- **small landholdings**

2.2 Sonora herd:
- **commercial operations**
- **small landholdings**

R. The national herd and herds in states that are free of classical swine fever, including both commercial and backyard operations are summarized in the following chart and table:

SWINE STOCK
IN CLASSICAL SWINE FEVER-FREE STATES



As can be seen, this information was obtained from INEGI'S 1991 census, so the data are not identical to those appearing in the documents submitted during the tripartite meeting as the information for those documents is current and was obtained from another source.

With regard to abattoirs, the Directory of Federal Inspection Type (TIF) Plants is attached, showing the average slaughter at each (Appendix 4). The municipal abattoirs in the classical swine fever-states that slaughter hogs are:

Baja California: 3 municipal and one private abattoir, with an average daily slaughter of 500 heads in total.

Baja California Sur: 3 municipal abattoirs with an average daily slaughter of 36 heads in total. There is another abattoir for which there are no statistics.

Chihuahua: 26 municipal and 5 private abattoirs, with an average daily slaughter of 598 heads in total.

Sinaloa: 18 municipal abattoirs, with an average daily slaughter of 318 heads in total.

Sonora: 19 municipal and 2 private abattoirs, with an average daily slaughter of 382 heads in total.

With regard to marketing of swine in Sonora, 95% of the farms are affiliated with an abattoir with trucks with a capacity for 100 or 125 animals, which collect them directly at the farm and take them to the slaughterhouse. The truck is washed and disinfected and then goes to another farm for the next shipment.

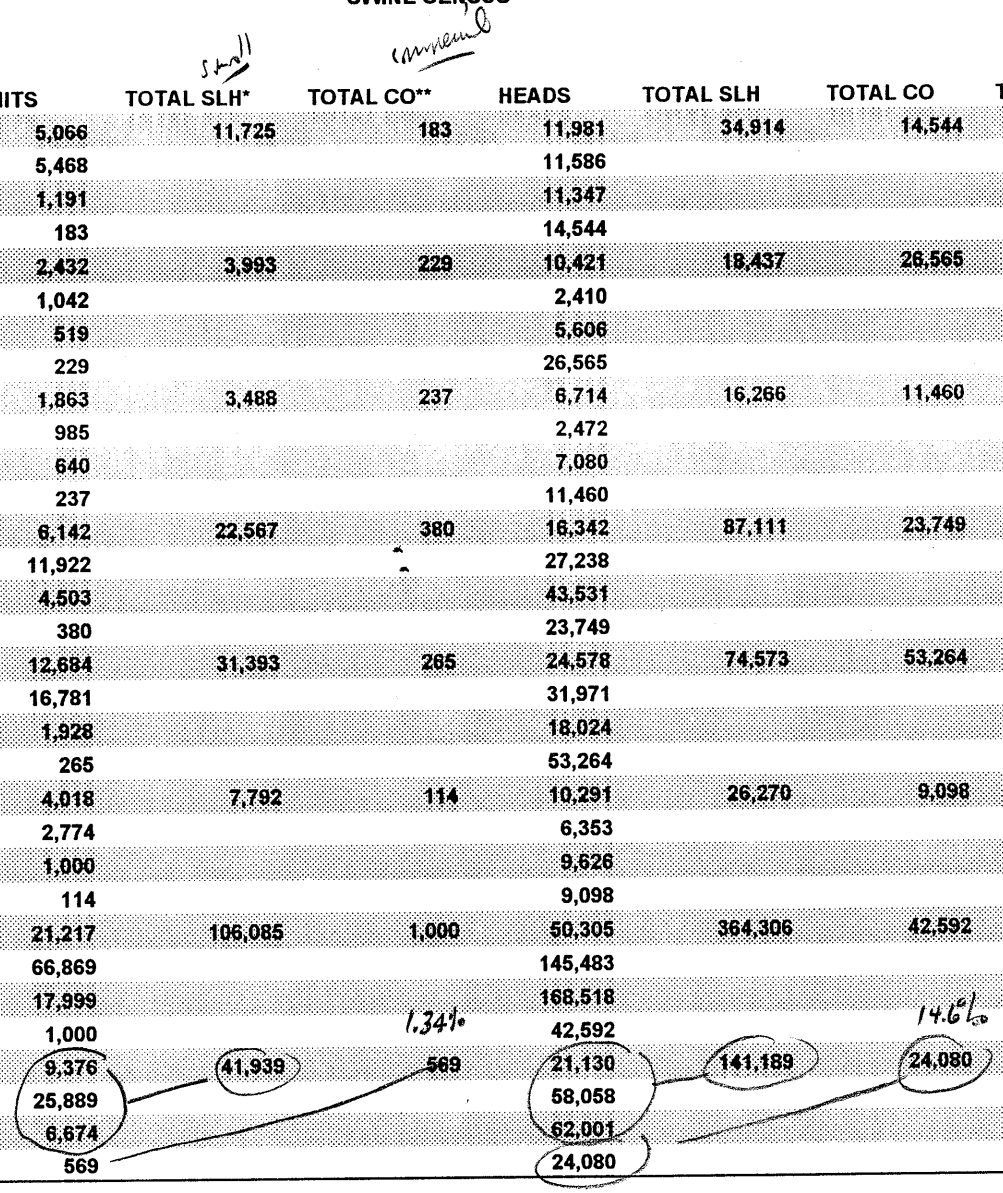
The remaining 5% of farms that are not affiliated to an abattoir ship the hogs on the hoof in trucks that have been washed and disinfected with capacities for 208, 216, 240 and 252 animals. The trucks are loaded at the farm and leave the state to go directly to their final destination, covered in all cases by a health certificate and shipping waybill. The big swine-producing groups who because of their large volume are unable to introduce all of their production into the abattoir with which they are affiliated, also sell hogs on the hoof, taking them out of the state in the same way as the 5% not affiliated to an abattoir. All of this is done through shipping agents who provide a service to the technicalized swine producers (operations using advanced production techniques). They pick up the livestock, ship them, pay the freight, negotiate the price, take them to the abattoir, wait out the term of payment, collect the payment a few days later, and finally pay the producer. Hogs that are marketed by shipping agents enter into the formal marketing circuit and are slaughtered at large abattoirs having strict federal inspection type (TIF) sanitary control.

The municipal abattoirs slaughter the remainder hogs, that is:

1. Hogs weighing 70 kgs. that did not develop at the optimum rate so keeping them is not economical.

SWINE CENSUS

STATE	TYPE	UNITS	TOTAL SLH*	TOTAL CO**	HEADS	TOTAL SLH	TOTAL CO	TOTAL UNITS	TOTAL HEADS
AGUASCALIENTES	SLH	5,066	11,725	183	11,981	34,914	14,544	11,908	49,458
	<= 5	5,468			11,586				
	5 – 20	1,191			11,347				
	>20	183			14,544				
BAJA CALIFORNIA	SLH	2,432	3,993	229	10,421	18,437	26,565	4,222	45,002
	<= 5	1,042			2,410				
	5 – 20	519			5,606				
	>20	229			26,565				
BAJA CALIFORNIA SUR	SLH	1,863	3,488	237	6,714	16,266	11,460	3,725	27,726
	<= 5	985			2,472				
	5 – 20	640			7,080				
	>20	237			11,460				
CAMPECHE	SLH	6,142	22,567	380	16,342	87,111	23,749	22,947	110,860
	<= 5	11,922			27,238				
	5 – 20	4,503			43,531				
	>20	380			23,749				
COAHUILA	SLH	12,684	31,393	265	24,578	74,573	53,264	31,658	127,837
	<= 5	16,781			31,971				
	5 – 20	1,928			18,024				
	>20	265			53,264				
COLIMA	SLH	4,018	7,792	114	10,291	26,270	9,098	7,906	35,368
	<= 5	2,774			6,353				
	5 – 20	1,000			9,626				
	>20	114			9,098				
CHIAPAS	SLH	21,217	106,085	1,000	50,305	364,306	42,592	107,085	406,898
	<= 5	66,869			145,483				
	5 – 20	17,999			168,518				
	>20	1,000			42,592				
CHIHUAHUA	SLH	9,376	41,939	569	21,130	141,189	24,080	42,508	165,269
	<= 5	25,889			58,058				
	5 – 20	6,674			62,001				
	>20	569			24,080				



STATE	TYPE	UNITS	TOTAL SLH*	TOTAL CO**	HEADS	TOTAL SLH	TOTAL CO	TOTAL UNITS	TOTAL HEADS
D.F.	SLH	5,737	9,881	191	14,085	33,861	12,379	10,072	46,240
	<= 5	2,909			6,640				
	5 – 20	1,235			13,136				
	>20	191			12,379				
DURANGO	SLH	18,915	61,519	422	43,608	205,733	19,825	61,941	225,558
	<= 5	33,011			74,610				
	5 – 20	9,593			87,515				
	>20	422			19,825				
GUANAJUATO	SLH	30,136	78,915	2,561	88,366	273,287	627,566	81,476	900,853
	<= 5	38,445			81,669				
	5 – 20	10,334			103,253				
	>20	2,561			627,566				
GUERRERO	SLH	35,126	135,957	1,345	119,756	589,267	47,944	137,302	637,211
	<= 5	68,972			171,398				
	5 – 20	31,859			298,113				
	>20	1,345			47,944				
HIDALGO	SLH	18,354	89,830	555	40,541	238,976	36,582	90,385	275,558
	<= 5	62,873			123,549				
	5 – 20	8,603			74,886				
	>20	555			36,582				
JALISCO	SLH	21,700	62,089	2,967	68,610	241,338	983,138	65,056	1,224,476
	<= 5	29,802			67,224				
	5 – 20	10,587			105,504				
	>20	2,967			983,138				
MEXICO	SLH	34,784	97,124	1,486	94,863	306,878	178,759	98,610	485,637
	<= 5	51,373			106,679				
	5 – 20	10,967			105,336				
	>20	1,486			178,759				
MICHOACAN	SLH	30,473	82,245	2,335	86,448	300,583	273,935	84,580	574,518
	<= 5	38,862			84,335				
	5 – 20	12,910			129,800				
	>20	2,335			273,935				
MORELOS	SLH	8,419	18,793	201	21,954	59,182	24,760	18,994	83,942
	<= 5	8,308			17,784				
	5 – 20	2,066			19,444				
	>20	201			24,760				

STATE	TYPE	UNITS	TOTAL SLH*	TOTAL CO**	HEADS	TOTAL SLH	TOTAL CO	TOTAL UNITS	TOTAL HEADS
NAYARIT	SLH	11,522	34,783	375	28,255	123,240	25,660	35,158	148,900
	<= 5	17,257			38,362				
	5 – 20	6,004			56,623				
	>20	375			25,660				
NUEVO LEON	SLH	6,323	21,114	445	18,490	71,217	104,164	21,559	175,381
	<= 5	11,948			26,063				
	5 – 20	2,843			26,664				
	>20	445			104,164				
OAXACA	SLH	26,747	143,475	380	60,654	380,010	14,620	143,855	394,630
	<= 5	102,854			197,289				
	5 – 20	13,874			122,067				
	>20	380			14,620				
PUEBLA	SLH	38,234	165,943	1,069	88,637	463,927	215,330	167,012	679,257
	<= 5	110,888			223,518				
	5 – 20	16,821			151,772				
	>20	1,069			215,330				
QUERETARO	SLH	9,815	28,750	231	22,750	80,378	44,876	28,981	125,254
	<= 5	16,260			34,517				
	5 – 20	2,675			23,111				
	>20	231			44,876				
QUINTANA ROO	SLH	2,667	15,369	220	6,414	56,695	22,500	15,589	79,195
	<= 5	9,591			22,301				
	5 – 20	3,111			27,980				
	>20	220			22,500				
SAN LUIS POTOSI	SLH	24,366	91,738	282	52,952	242,144	32,743	92,020	274,887
	<= 5	59,103			117,281				
	5 – 20	8,269			71,911				
	>20	282	99.7%	.3%	32,743	80.6%	19.37%		
SINALOA	SLH	31,332	67,884	676	76,572	204,218	49,051	68,560	253,269
	<= 5	29,369			59,803				
	5 – 20	7,183			67,843				
	>20	676	96.7%	3.3%	49,051	80.6%	19.4%		
SONORA	SLH	9,741	16,253	522	114,989	138,629	1,171,625	16,775	1,310,254
	<= 5	SLH 5,222			10,631				
	5 – 20	1,290			13,009				
	>20	CO 522			1,171,625				

STATE	TYPE	UNITS	TOTAL SLH*	TOTAL CO**	HEADS	TOTAL SLH	TOTAL CO	TOTAL UNITS	TOTAL HEADS
TABASCO	SLH	24,628	67,026	568	53,728	205,830	23,696	67,594	229,526
	<= 5	34,011			72,857				
	5 – 20	8,387			79,245				
	>20	568			23,696				
TAMAULIPAS	SLH	19,229	58,124	497	40,825	171,214	79,927	58,621	251,141
	<= 5	31,945			66,653				
	5 – 20	6,950			63,736				
	>20	497			79,927				
TLAXCALA	SLH	5,813	24,859	362	14,138	78,114	39,020	25,221	117,134
	<= 5	15,880			33,900				
	5 – 20	3,166			30,076				
	>20	362			39,020				
VERACRUZ	SLH	89,492	243,876	1,343	213,594	728,457	68,268	245,219	796,725
	<= 5	127,062			265,564				
	5 – 20	27,322			249,299				
	>20	1,343			68,268				
YUCATAN	SLH	12,667	42,657	643	29,331	125,187	134,723	43,300	259,910
	<= 5	25,326			53,345				
	5 – 20	4,664			42,511				
	>20	643			134,723				
ZACATECAS	SLH	14,146	63,773	455	31,975	198,405	18,282	64,228	216,687
	<= 5	40,840			88,468				
	5 – 20	8,787			77,962				
	>20	455			18,282				
NATIONAL TOTAL		1,974,067	1,950,959	23,108	10,734,561	6,279,836	4,454,725		

* SLH - SMALL LAND HOLDINGS

** CO - COMMERCIAL OPERATIONS

SOURCE: INEGI 1991

2. Culled sows weighing from 220 to 230 kgs., and sires that have been castrated after having completed their reproductive function.

These hogs go to a local or municipal market and are priced at that level because of their low cost. However, these hogs are perfectly healthy and are always covered by a sanitary waybill. It is important to mention that buyers of these hogs are only permitted to go to the farms in vehicles that have been washed and disinfected and the vehicles may never already be loaded with any other swine. Upon arriving at the farm, they go through a disinfecting trough, pick up the lot of remainder hogs and take them directly to the abattoir.

All hogs of this type coming from farms with advanced production techniques enter the formal marketing chain.

Production from backyard operations does not enter this chain. In Sonora there is almost none of this type of production and where it exists, it is for the producer's own consumption; this type of hogs cannot be marketed because they are not covered by a sanitary waybill and therefore there are no buyers as this is a prohibited product.

The national panorama in this regard is different, and to understand it requires giving the following explanation:

The pork production process includes the following stages: production of live hogs for market; slaughter; cutting up the carcass, and meat processing.

One of the characteristics of the swine production system in our country is that these stages are divided up in terms of place and ownership, with the marketing processes serving as the links connecting these stages to each other and to the end consumer.

However, there are small groups of hog producers that have been able to integrate most, and in some cases all, of these stages. Examples of total vertical integration are the hog producers of Atotonilco, Jal. and the SALVI, Bribiesca and García groups in La Piedad, Mich. The Sonora swine producers have total or partial integration. At the communal farm level, this partial type of integration has been achieved by the Communal Farm Marketing Committee of Ciudad Obregón, Son.

Pork production process

Production of hogs on the hoof. The production of hogs for market takes place on three different types of farms that are classified according to their level of technology as: technicalized farms, semi-technicalized farms, and backyard operations.

Technicalized farms (those using advanced production techniques).- What predominates in this type of operation is the complete-cycle mode (integration of breeding and fattening). Together, they represent the most dynamic pole of the swine-producing industry. A number of specialists have estimated that the segment at this technological level makes up between 10 and 17% of the hog inventory. The largest concentration of technicalized farms is located in the northwestern part of the country (especially in Sonora, where both private and communal farm hog producers use very advanced technology), although they exist as a smaller proportion in the States of Guanajuato,

Puebla, Jalisco, México, Nuevo León, Michoacán, Sinaloa and Yucatán.

Semi-technicalized farms.- This classification generally includes the fattening farms in La Piedad, Santa Ana Pacueco, Pénjamo, and some full-cycle operations in the central part of the country. The predominant technology in this type of operation is a mixture of modern techniques, such as a diet based on balanced feeds, combined with traditional management systems. The semi-technicalized segment is tending to disappear as a result of the crisis; in fact, fattening is a system that is being replaced by the full cycle.

Backyard operations.- It is estimated that between 55 and 60% of the hog inventory is produced under rustic conditions, and is an important source of income and animal protein and the only type of savings for a very large group of the low-income rural and urban population. These operations are located principally in the tropical and sub-tropical zones, on the coasts of Guerrero, Oaxaca, Chiapas and Veracruz and are found throughout the length and breadth of the country. The size and extension of this segment represent an obstacle to obtaining complete information about the dimensions of our swine industry but not in determining marketing circuits, since our assumption is that its share of the market is minimal.
Of the three segments mentioned, only the first two (technicalized and semi-technicalized), which together make up the organized swine-producing industry, are fully integrated into the formal intra and interstate marketing circuits.

Slaughtering. Livestock slaughtering is performed in five different settings, depending on the type of ownership, the sanitary requirements, the slaughter volume and the legality of the operation. These settings are: municipal abattoirs, Federal Inspection Type (TIF) packing plants, private abattoirs, public and private slaughterhouses and clandestine slaughtering.

Cutting up the carcasses.- After the live hog has been slaughtered and transformed into a carcass at the abattoirs and packing plants, a new labor process takes place which is cutting up the carcass. This work is done by an important economic agent who is the carcass cutter/wholesaler. His function consists of concentrating very large volumes of hog carcasses, cutting them up to obtain the different pieces and by-products and distributing them to the different types of markets.
In the case of a producer with an integrated operation, the processes of slaughtering and cutting up the carcass are done in the same place, since the carcass cutter/wholesaler works at the abattoir. In the case of some municipal abattoirs, the carcass cutter/wholesaler is physically in the abattoir but works as a private concessionaire. What is most common is that slaughtering is done in one place and cutting up the carcass in another, which may be a long distance away from the first site.
The current tendency in the swine industry is to bring together these two stages; however, cutting up the carcass continues to be one more stage in the production process that frequently occurs separately from the processes of slaughtering and meat processing.

Meat Processing.- In this stage some parts of the hog are processed into hams, sausages, smoked products and cold cuts. The fat is processed into lard. Both small artisanal operations and large technicalized plants participate in the pork production process.

The marketing chain.

In the case of pork, the chain is made up of the following elements: products, marketing circuits, economic agents, and the type of transaction.

Products.- Strictly speaking, the pork marketing chain begins with the first commercial operation that is performed after the live hog has been slaughtered and transformed into a carcass, and ends with the retail sale of the various cuts and by-products that are obtained from the processes of slaughtering and cutting up the carcass. However, due to the lack of integration on the part of most swine producers, several commercial operations take place with the live hog prior to this first operation with the hog carcass. For example, often three sales transactions occur with a hog on the hoof: from the producer to the assembler; from the assembler to the middleman; and from the middleman to the commission agent.
Swine products in the marketing chain are the following: Live hogs, hog carcasses, meat (fresh, frozen and semi-frozen), lard and processed products.

Marketing circuits.- The most important marketing circuits are established between states and sometimes are very far away from each other, but the case of circuits that do not cross state boundaries should also be considered when the local herd is large. Such is the case in Veracruz, which has a large swine herd, but apparently all the production is consumed locally.
As a function of the volumes handled and the distances traveled, the following are the principal marketing circuits in order of their importance:

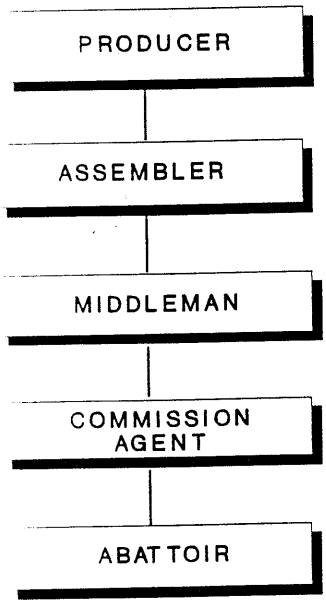
a) Interstate circuits
Sub-circuits:
1. Center-Federal District (F.D.) Metropolitan Area (M.A.) and other states:
1.1 Jalisco-F.D., M.A. and others
1.2 La Piedad-F.D., M.A. and others
1.3 Guanajuato-F.D., M.A. and others
1.4 Puebla-F.D., Veracruz and Tabasco
1.5 Querétaro-F.D., M.A.

2. Sonora-other cities
Sub-circuits:
2.1 Sonora-F.D. and M.A.
2.2 Sonora-Guadalajara
2.3 Sonora-Monterrey
2.4 Sonora-border cities (Mexicali, Tijuana, etc.)
2.5 Sonora-Pacific Coast (Mazatlán, Manzanillo, etc.)
2.6 Sonora-other cities

3. Production zones of Yucatán-Yucatán Peninsula
b) Intrastate circuits
1. State of Veracruz

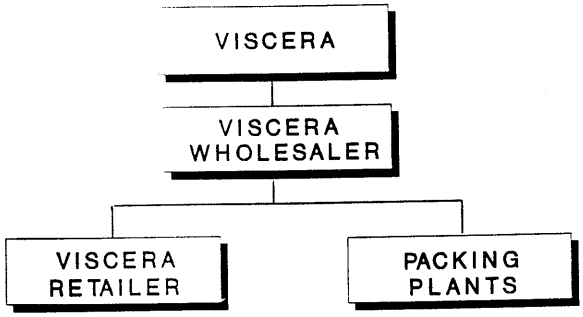
Economic agents.- A large number of agents are involved in the non-integrated swine industry marketing chain. The processing of a live hog into products ready for human consumption and their placement at the right points for retail sale may require (in the most complex but not most infrequent of cases) the participation of as many as eleven economic agents: producer, assembler, middleman, commission agent, abattoir, carcass cutter/wholesaler, viscera wholesaler, meat packer, lard handler, refrigeration unit, and retail selling.
In traditional marketing of live hogs, from four to five agents are involved. Fifty per cent of small swine producers in the central part of the country sell to an assembler who assembles animals locally and later sells them to a middleman. The remaining 50% sell directly to the middleman, whose function consists of taking hogs to the abattoir and contacting the commission agent or carcass cutter/wholesaler.

LIVE HOG MARKETING



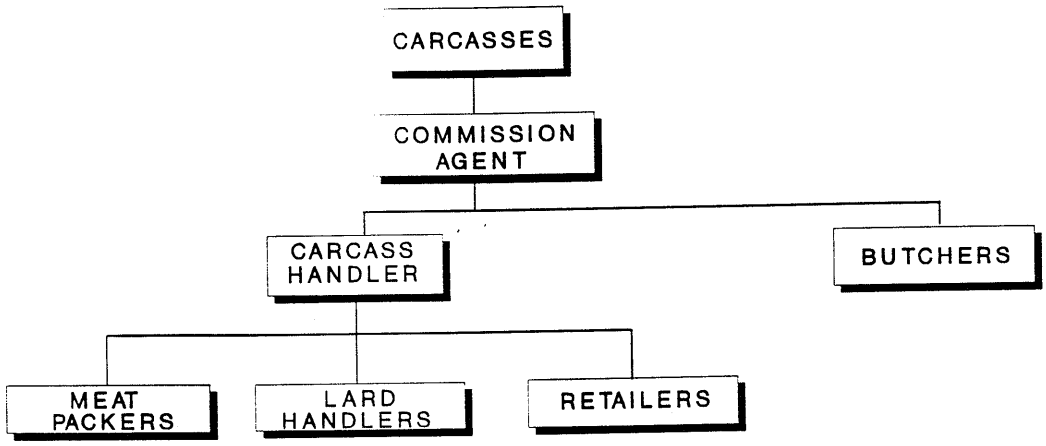
Various different agents intervene in marketing the products and by-products obtained from the slaughterhouses. The viscera are purchased by viscera wholesalers, whose customers are the packing plants and retailers.

VISCERA MARKETING



Hog carcasses owned by the commission agents are purchased directly by the carcass handler, who channels the products obtained (pieces and fat) to three different agents: meat packers, lard handlers and retailers (supermarkets, butcher shops, markets on wheels, neighborhood markets, etc.)

HOG CARCASSES MARKETING



Retailing is not a single agent but rather it includes many different agents participating this activity.

Type of transaction.- The characteristics of the commercial transactions performed by the various agents -- forms of payment, terms, "penalties", financing, etc. -- vary considerably, depending on the region and the type of swine production. But over and above these modes of operation, there are specific production-commercial structures that result in what can be considered as typical operations.

All the agents that participate in the chain finance each other in one way or another, except the swine producer, who is not financed by anyone, and the meat packers, who do not finance anyone.[2]

[2] Pérez, R. Proyecto: Sistema de Vigilancia Alimentaria y Nutricional SECOFI-UNDP-FAO, 1988.

ASSESSMENT OF ANIMAL HEALTH REGULATORY ACTIVITIES FOR SONORA

SURVEILLANCE PROCEDURES

1. Describe standard surveillance procedures for swine diseases (i) in sonora, and (ii) in the three adjacent Mexican states (disease agents tested for, number of samples submitted annually for the last three years and results).

R. For Baja California, Baja California Sur, Chihuahua, Sinaloa and Sonora, these are described in the documents under item IV, **Surveillance and Statistical Programs.** Item 4, **General Provisions**, of the draft standard included in the documents indicates: In zones in the control and eradication phase, epizootiological surveillance will be conducted, with reporting of cases or outbreaks and their diagnosis and follow up until every case has been resolved.
In free zones, epizootiological surveillance will be conducted through serological sampling done at least every 12 months. The latter is also indicated in item 5.4, **Campaign Procedures**, of the same standard.
In item 7, **Epizootiological Surveillance**, the procedures are described in detail. The disease agents tested for, number of samples and results for the last three years are attached (Appendix 10), with the clarification that in item IV, paragraph a), **Clinical Surveillance on Farms,** of the document on Sonora submitted at the tripartite meeting held last June, the laboratory results are explained, and for the State of Sinaloa, these are given under item II, paragraph c), **Epidemiological Sampling**, in the document for that state.

2. If a serological screening for HC antibodies were to be conducted in Sonora by the accredited veterinarians, describe the method used and the statistical data obtained.

R. Samples are taken directly on farms, based on an expected antibody prevalence of 10% and a 95% confidence level. In addition, samples are taken at the abattoir. The surveys are described in the documents under item V, paragraph a), **Clinical Surveillance on Farms**.

3. Is reporting of sick swine to state or national veterinary services mandatory? Explain the procedure.

R. Any suspicion of classical swine fever requires mandatory notification and the procedure is the same as that described in the next point.

4. Describe the reporting method of vesicular conditions to the national veterinary services.

R. The method is described in detail under item V, paragraph, b), **Disease Notification**, in the documents, but in general terms it is as follows:
Any suspicion of vesicular disease or any other disease that is exotic to the country or to a free zone is reported to the Mexico-U.S. Commission for the Prevention of Foot-and-Mouth Disease and Other Exotic Animal Disease (EADC) and is investigated by the EADC regional coordinator or an official veterinarian. The diagnosis is made in the EADC's high security laboratory in Mexico City. Article 43 of the Federal Animal Health Law (Appendix 5) indicates who is responsible for notifying SARH of cases of diseases requiring mandatory notification. It is important to mention that in free zones, classical swine fever is considered and treated like an exotic disease.

5. Describe the reporting method of suspicious and/or confirmed HC diagnoses to other countries. If Sonora were recognized as a HC-free region, what process would be used to notify trading partners of an HC outbreak?

R. All outbreaks of classical swine fever are reported in the regular manner to the International Bureau of Epizootics (OIE) and to the countries with whom there are bilateral animal health information agreements. In the case of the United States and Canada, immediate notification would be given by telephone and fax when a diagnosis is confirmed.

6. Describe the animal identification system in use in swine.

R. Various different systems are used for the individual identification of animals: ear notches, eartags, and tattooing, amongst others.

IMPORTS

(For each issue, compare the national policy/program to that of the State of Sonora).

1. From what countries or parts of countries do you allow the importation of swine?

R. Canada, United States, Denmark and England.

2. Is importation of swine, pork and pork products into Sonora from other states of Mexico permitted? If yes, please list the states and what is imported.

R. In item V, paragraph b), **From free states to control zones**, of the documents for international recognition of free zones, and in item 10, **Movements**, of the draft Mexican Official Standards attached to those documents, it states that the importation of live swine coming from control or eradication zones is not permitted. With regard to pork and pork products, they are permitted entry into Sonora in item VI, **Control of Movements**, in those documents, the requirements for entry into classical swine fever free states are described; in addition, in Appendix 2 of those documents a list is given of the Federal Inspection Type (TIF) plants authorized to market pork and pork products to free zones and zones in the classical swine fever eradication phase.
A list is attached showing the origin, amount, and type of products introduced into the State of Sonora (Appendix 11).

3. Have you recognized parts of countries to be free of HC? If yes, which one and on what basis?

R. As yet, no areas in other countries have been recognized as classical swine fever free zones.

4. Identify major classes of animal products being imported and the source countries.

R.

PRODUCTS	COUNTRY OF ORIGIN
Beef and pork products (carcasses, cuts, ground meat, preparations, viscera, pieces, waste, and skin)	United States, Canada, Sweden and Denmark
Lamb and Mutton products	United states, Canada, New Zealand, Australia, Chile
Poultry meat products	United States
Equine meat products	United States, Canada
Turkey and hog sausages	United States, Canada, Sweden, Norway, Denmark, Spain (only with heat treatment
Canned products	United States, Canada, France, Germany, Spain (with heat treatment) Italy (via the United States with an open selling certificate)
Dairy products: liquid milk	United States, Canada
Dairy products: powdered milk	United States, Canada, Northern Ireland, France, Holland, Germany, Poland, Argentina, Belgium, Czech Republic, Slovakia, Uruguay
Dairy products: soft or fresh cheeses	United States, Canada
Dairy products: hard and semi-hard cheeses	France, Germany, Holland, United States, Canada
Other dairy products	United States, Canada, Australia, New Zealand, FMD-free European countries
Hides, chrome-tanned (wet blue)	Italy, Paraguay, argentina, brazil
Hides, cured (green-salted)	United States, Guatemala, Costa Rica, El Salvador
Eggs	United States

It is important to point out that meat and dairy products are imported only from accredited plants in foreign countries in the case of countries not recognized as being free of foot-and-mouth disease.

5. Describe your policies of importation with regard to the HC status of the exporting country.

R. The importation of hogs is not permitted from countries in which classical swine fever is present.

6. Describe the program with specific reference to inspection procedures at international air and marine ports and interstate airports.

R. This is fully described in item V.1, **Procedure for the importation of animals, animal, plant and forest products and by-products, chemicals, biologics, pharmaceuticals, food products and equipment for use by the agricultural and forestry sector in ports, airports and border crossings** in the Manual of International Plant and Animal Health Inspection Procedures (Appendix 12).

7. What are the control measures for the entry of imported animals and animal products? (certification, inspection, quarantine, tests). Provide examples of relevant documents and verification processes used.

R. In the manual mentioned in the previous point (Appendix 12), at the same time that the inspection procedures are described, the applicable control measures for each case are stated and the relevant documents used in the process are in the manual's appendices. In addition, the control measures for movements between states are included in the documents under item VI, **Control of Movements**. Generally speaking, the importation of live hogs is prohibited, but the importation of pork products is allowed with heat treatment. Copies of the relevant documents for interstate and state movements and animal health requirements for importations are attached (Appendices 13 and 14, respectively).

8. Provide statistics on border inspection activities along the border between Sonora and neighboring Mexican states, including the number of commercial importations inspected, the number of vehicles inspected and the quantity of animals and animal products seized by your inspectors, with emphasis on Sonora points of entry.

R.

	COMMERCIAL IMPORTATIONS INSPECTED	NUMBER OF VEHICLES INSPECTED	ANIMALS* CONFISCATED AND/OR REJECTED	PRODUCTS** CONFISCATED AND/OR REJECTED
CHIHUAHUA				
1993	576	511,160	2	760
Jan-Jul 94	349	278,430	4	1,435
Total	922	789,590	7	2,195
SONORA				
1993	1,959	28,415	438	8,142
Jan-Jul 94	916	16,716	108	2,394
Total	2,875	45,131	518	10,536
SINALOA				
1993	-	3,245	89,283	7,141
Jan-Jul 94	-	5,574	281	237,771
Total	-	8,819	89,564	244,912***

* Chihuahua 4 pigs and 3 birds
Sonora 518 birds
Sinaloa 86,780 birds and 3 bovines at the La Concha checkpoint
** Kgs. of pork products
***Kgs. of pork and poultry products

9. Describe the program of importation of veterinary biologics, and provide details specifically on swine vaccine importations (quantity, country of origin).

R. The only biologics imported in large quantities are for poultry and those are only of non-exotic strains. With regard to swine biologics, only inactivated antigens and seeds for preparing vaccines in Mexico are imported (from the United States), and every particular case is analyzed to avoid the risk of introducing an exotic disease into the country. The importation of classic swine fever vaccines into free zones is not permitted and their use is prohibited.

10. Describe any policies/programs relative to the disposal of food wastes from arriving international aircraft and ships.

R. Food wastes from aircraft coming from countries quarantined for Mexico are confiscated and collected by a concessionaire company, which incinerates them under the supervision of a plant and animal health inspector.
With regard to ships, the landing of garbage is not permitted and the captain or first officer is informed that it must not be disposed of in Mexican territorial waters.
Garbage must be kept on the ship in protected bags or containers or destroyed in the ship's incinerator.
If the inspection station has an incinerator, it may be disposed of through a concessionaire company. This operation must always be performed under the supervision of a plant and animal health inspector (Appendix 12).

EXPORTS

1. **Animal exports during the last three years:**
   - **names of receiving countries**
   - **number of animals/shipments exported**
   - **number of shipments with certification problems**
   - **number of shipments rejected**

R. At the present time, no live hogs are exported.

2. **Animal product exports during the last three years:**
   - **names of receiving countries**
   - **number of shipments certified for export**
   - **number of shipments with certification problems**
   - **number of shipments rejected**

R. The following table gives a summary of exports from 1991 to date. The graph shows only exports of pork and pork products. Shipments with certification problems or rejects occur only rarely. As can be observed, only products from Federal Inspection Type (TIF) plants are exported.

EXPORT OF MEAT PRODUCTS AND BY-PRODUCTS

1991 GLOBAL REPORT .

T.I.F. PLANTS NUMBER	TYPE OF PRODUCT	COUNTRY	KILOGRAMS
2-A	BOVINE MEAT	JAPAN	930,040
2-A	BOVINE MEAT	UNITED STATES	159,568
3	BOVINE MEAT	JAPAN	395,307
3	BOVINE MEAT	UNITED STATES	405,699
45	BOVINE MEAT	UNITED STATES	117,131
49	BOVINE MEAT	JAPAN	2
49	BOVINE MEAT	UNITED STATES	41,710
86	BOVINE MEAT	UNITED STATES	106
86	BOVINE MEAT	JAPAN	181,782
3	BOVINE VISCERA	JAPAN	67,056
51	BOVINE VISCERA	GERMANY	46,870
57	PORCINE MEAT	JAPAN	523,134
66	PORCINE MEAT	JAPAN	140,531
74	PORCINE MEAT	JAPAN	350,456
E-20	EQUINE MEAT	JAPAN	100,152
E-30	EQUINE MEAT	BELGICA	92,092
E-33	EQUINE MEAT	JAPAN	78,944
E-33	EQUINE MEAT	BELGICA	260,313
E-42	EQUINE MEAT	JAPAN	1,226,735
E-42	EQUINE MEAT	BELGICA	502,087
E-33	EQUINE VISCERA	GERMANY	18,202
E-42	EQUINE VISCERA	JAPAN	24,025
A-14	POULTRY MEAT	JAPAN	7,374,964
A-14	POULTRY MEAT	HONG-KONG	16,198
A-14	POULTRY MEAT	CHINA	332,618
2 -B	POULTRY MEAT	JAPAN	1,119,954
46	INTESTINES	UNITED STATES	1,931,342
60	INTESTINES	UNITED STATES	1,341,942
79	INTESTINES	UNITED STATES	365,404
80	INTESTINES	UNITED STATES	1,090,344
4	PELLET DE PORCINO	UNITED STATES	10,492
4	PELLET DE PORCINO	JAPAN	2,160
4	PELLET DE PORCINO	PUERTO RICO	2,160
4	PELLET DE PORCINO	SPAIN	62
4	PELLET DE PORCINO	VENEZUELA	28
4	PELLET DE PORCINO	CANADA	5
4	PELLET DE PORCINO	GERMANY	5
4	PELLET DE PORCINO	COSTA RICA	3
4	PELLET DE PORCINO	HONDURAS	2
4	PELLET DE PORCINO	COLOMBIA	2
4	PELLET DE PORCINO	GUATEMALA	1
4	PORCINE ANIMAL PROTEIN	VENEZUELA	20,900
		GRAND TOTAL	**19,270,528**

EXPORT OF MEAT PRODUCTS AND BY-PRODUCTS

1992 GLOBAL REPORT

T.I.F. PLANTS NUMBER	TYPE OF PRODUCT	COUNTRY	TOTAL KILOGRAMS
2-A	BOVINE MEAT	JAPAN	360,386
2-A	BOVINE MEAT	UNITED STATES	1,494
3	BOVINE MEAT	UNITED STATES	252,800
3	BOVINE MEAT	JAPAN	24,950
45	BOVINE MEAT	UNITED STATES	19,050
49	BOVINE MEAT	UNITED STATES	8,466
82	BOVINE MEAT	UNITED STATES	14,609
86	BOVINE MEAT	UNITED STATES	2,985
86	BOVINE MEAT	JAPAN	23,475
3	BOVINE VISCERA	JAPAN	65,978
62	BOVINE VISCERA	JAPAN	4,515
57	PORCINE MEAT	JAPAN	805,547
66	PORCINE MEAT	JAPAN	622,312
74	PORCINE MEAT	JAPAN	1,862,105
66	PORCINE VISCERA	JAPAN	51,268
E-20	EQUINE MEAT	JAPAN	75,114
E-33	EQUINE MEAT	BELGICA	390,388
E-33	EQUINE MEAT	JAPAN	60,084
E-42	EQUINE MEAT	BELGICA	617,320
E-42	EQUINE MEAT	JAPAN	868,544
E-42	EQUINE MEAT	ITALY	95,881
E-42	EQUINE VISCERA	JAPAN	30,350
A-14	POULTRY MEAT	JAPAN	6,298,750
A-14	POULTRY MEAT	CHINA	167,700
A-14	POULTRY MEAT	HONG-KONG	21,528
2 -B	POULTRY MEAT	JAPAN	2,296,606
46	INTESTINES	UNITED STATES	2,145,237
60	INTESTINES	UNITED STATES	598,305
79	INTESTINES	UNITED STATES	460,551
80	INTESTINES	UNITED STATES	1,256,060
4	PORCINE PELLET	UNITED STATES	4,314
4	PORCINE PELLET	VENEZUELA	51
4	PORCINE PELLET	PUERTO RICO	10
4	PORCINE PELLET	GUATEMALA	72,122
4	PORCINE PELLET	CANADA	13
4	PORCINE ANIMAL PROTEIN	VENEZUELA	31,000
		GRAND TOTAL	**19,609,868**

EXPORT OF MEAT PRODUCTS AND BY-PRODUCTS

1993 GLOBAL REPORT .

T.I.F. PLANTS NUMBER	TYPE OF PRODUCT	COUNTRY	TOTAL KILOGRAMS
2- A	BOVINE MEAT	JAPAN	609,504
3	BOVINE MEAT	JAPAN	4,085
3	BOVINE MEAT	UNITED STATES	545,019
45	BOVINE MEAT	UNITED STATES	114,300
49	BOVINE MEAT	JAPAN	9
86	BOVINE MEAT	UNITED STATES	20,345
86	BOVINE MEAT	JAPAN	99,589
94	BOVINE MEAT	JAPAN	21
94	BOVINE MEAT	CHILE	2
111	BOVINE MEAT	JAPAN	28
114	BOVINE MEAT	VENEZUELA	91,743
125	BOVINE MEAT	UNITED STATES	766,356
3	BOVINE VISCERA	JAPAN	9,848
86	BOVINE VISCERA	JAPAN	13,907
49	PORCINE MEAT	JAPAN	8,032
57	PORCINE MEAT	JAPAN	946,150
66	PORCINE MEAT	JAPAN	1,475,353
74	PORCINE MEAT	JAPAN	1,546,336
81	PORCINE MEAT	JAPAN	269,834
66	PORCINE VISCERA	JAPAN	118,980
74	PORCINE VISCERA	JAPAN	6,410
81	PORCINE VISCERA	JAPAN	72,377
E-33	EQUINE MEAT	BELGICA	613,820
E-33	EQUINE MEAT	JAPAN	163,331
E-33	EQUINE MEAT	SWITZERLAND	25,365
E-42	EQUINE MEAT	BELGICA	612,207
E-42	EQUINE MEAT	FRANCE	2,600
E-42	EQUINE MEAT	JAPAN	794,732
E-42	EQUINE MEAT	ITALY	1,377
E-43	EQUINE MEAT	JAPAN	10
E-42	EQUINE VISCERA	GERMANY	14,466
E-42	EQUINE VISCERA	JAPAN	41,900
E-43	EQUINE VISCERA	JAPAN	20
A-14	POULTRY MEAT	JAPAN	46,008
2- B	POULTRY MEAT	JAPAN	2,163,856
46	INTESTINES	UNITED STATES	1,970,713
79	INTESTINES	UNITED STATES	541,313
80	INTESTINES	UNITED STATES	1,509,223
130	INTESTINES	UNITED STATES	325,133
4	PELLET	BELGICA	5
4	PELLET	COSTA RICA	1,800
4	PELLET	DENMARK	3
4	PELLET	SPAIN	10
4	PELLET	UNITED STATES	12,059
4	PELLET	GUATEMALA	57,759
4	PELLET	HONDURAS	1
4	PELLET	ENGLAND	11
4	PELLET	ISRAEL	10
4	PELLET	JAPAN	13
4	PELLET	PORTUGAL	1
4	PELLET	SALVADOR	1
4	PELLET	VENEZUELA	6
145	PELLET	GUATEMALA	36,312

GRAND TOTAL	**15,652,293**

EXPORT OF MEAT PRODUCTS AND BY-PRODUCTS

1994 JANUARY REPORT.

T.I.F. PLANTS NUMBER	TYPE OF PRODUCT	COUNTRY	TOTAL KILOGRAMS
2-A	BOVINE MEAT	JAPAN	52,224
3	BOVINE MEAT	UNITED STATES	55,554
86	BOVINE MEAT	UNITED STATES	1,764
114	BOVINE MEAT	VENEZUELA	13,589
57	PORCINE MEAT	JAPAN	33,767
66	PORCINE MEAT	JAPAN	119,172
74	PORCINE MEAT	JAPAN	100,176
81	PORCINE MEAT	JAPAN	34,218
66	PORCINE VISCERA	JAPAN	17,000
74	PORCINE VISCERA	JAPAN	970
E-33	EQUINE MEAT	BELGICA	101,117
E-33	EQUINE MEAT	SWITZERLAND	2,771
E-42	EQUINE MEAT	BELGICA	69,192
E-42	EQUINE MEAT	JAPAN	22,000
E-42	EQUINE MEAT	FRANCE	8,363
E-42	EQUINE VISCERA	JAPAN	2,000
2-B	POULTRY MEAT	JAPAN	144,648
114	POULTRY MEAT	VENEZUELA	5,393
46	INTESTINES	UNITED STATES	117,803
79	INTESTINES	UNITED STATES	19,198
80	INTESTINES	UNITED STATES	55,514
130	INTESTINES	UNITED STATES	17,924
4	PORCINE PELLET	GUATEMALA	10,025
4	PORCINE PELLET	PUERTO RICO	5
4	PORCINE PELLET	UNITED STATES	7
145	PORCINE PELLET	GUATEMALA	18,156
		TOTAL Kg	**1,022,550**

EXPORT OF MEAT PRODUCTS AND BY-PRODUCTS

1994 FEBRUARY REPORT.

T.I.F. PLANTS NUMBER	TYPE OF PRODUCT	COUNTRY	TOTAL KILOGRAMS
2-A	BOVINE MEAT	JAPAN	26,112
3	BOVINE MEAT	UNITED STATES	15,509
45	BOVINE MEAT	UNITED STATES	19,050
86	BOVINE MEAT	JAPAN	32,680
114	BOVINE MEAT	VENEZUELA	28,664
125	BOVINE MEAT	UNITED STATES	169,009
57	PORCINE MEAT	JAPAN	59,669
66	PORCINE MEAT	JAPAN	187,627
74	PORCINE MEAT	JAPAN	203,751
81	PORCINE MEAT	JAPAN	17,509
66	PORCINE VISCERA	JAPAN	17,000
74	PORCINE VISCERA	JAPAN	1,180
148	POCINE SAUSAGE	JAPAN	496
E-33	EQUINE MEAT	BELGICA	98,734
E-42	EQUINE MEAT	BELGICA	83,911
E-42	EQUINE MEAT	JAPAN	64,155
E-42	EQUINE VISCERA	JAPAN	8,900
2-B	POULTRY MEAT	JAPAN	192,868
114	POULTRY MEAT	VENEZUELA	7,395
46	INTESTINES	UNITED STATES	193,529
79	INTESTINES	UNITED STATES	41,794
80	INTESTINES	UNITED STATES	116,630
130	INTESTINES	UNITED STATES	56,779
4	PORCINE PELLET	GUATEMALA	10,020
4	PORCINE PELLET	UNITED STATES	5
		TOTAL Kg	**1,652,976**

EXPORT OF MEAT PRODUCTS AND BY-PRODUCTS

1994 MARCH REPORT.

T.I.F. PLANTS NUMBER	TYPE OF PRODUCT	COUNTRY	TOTAL KILOGRAMS
2-A	BOVINE MEAT	JAPAN	57,472
3	BOVINE MEAT	UNITED STATES	14,543
114	BOVINE MEAT	VENEZUELA	16,587
125	BOVINE MEAT	UNITED STATES	67,062
149	BOVINE MEAT	UNITED STATES	85,410
57	PORCINE MEAT	JAPAN	33,904
66	PORCINE MEAT	JAPAN	86,115
74	PORCINE MEAT	JAPAN	135.898
81	PORCINE MEAT	JAPAN	17,491
66	PORCINE VISCERA	JAPAN	17,060
74	PORCINE VISCERA	JAPAN	780
E-33	EQUINE MEAT	BELGICA	108,248
E-42	EQUINE MEAT	BELGICA	69,897
E-42	EQUINE MEAT	JAPAN	60,020
E-42	EQUINE MEAT	FRANCE	1,406
E-42	EQUINE VISCERA	JAPAN	11,960
2-B	POULTRY MEAT	JAPAN	192,867
46	INTESTINES	UNITED STATES	150.240
79	INTESTINES	UNITED STATES	41.145
80	INTESTINES	UNITED STATES	112,517
130	INTESTINES	UNITED STATES	55,881
4	PORCINE PELLET	GUATEMALA	12.000
4	PORCINE PELLET	JAPAN	7
4	PORCINE PELLET	SPAIN	5
4	PORCINE PELLET	COSTA RICA	4
145	PORCINE PELLET	GUATEMALA	18,156

TOTAL Kg	**1,366,675**

EXPORT OF MEAT PRODUCTS AND BY-PRODUCTS

1994 APRIL REPORT.

T.I.F. PLANTS NUMBER	TYPE OF PRODUCT	COUNTRY	TOTAL KILOGRAMS
2-A	BOVINE MEAT	JAPAN	42,112
3	BOVINE MEAT	UNITED STATES	17,681
45	BOVINE MEAT	UNITED STATES	38,110
86	BOVINE MEAT	UNITED STATES	708
86	BOVINE MEAT	JAPAN	16,709
94	BOVINE MEAT	UNITED STATES	4
114	BOVINE MEAT	VENEZUELA	72,818
125	BOVINE MEAT	UNITED STATES	65,626
149	BOVINE MEAT	UNITED STATES	17,359
57	PORCINE MEAT	JAPAN	67,863
66	PORCINE MEAT	JAPAN	102,115
74	PORCINE MEAT	JAPAN	154,249
81	PORCINE MEAT	JAPAN	17,031
49	PORCINE VISCERA	JAPAN	12,155
66	PORCINE VISCERA	JAPAN	17,000
74	PORCINE VISCERA	JAPAN	780
E-33	CARNE DE EQUIN0	BELGICA	97,560
E-42	EQUINE MEAT	BELGICA	43,141
E-42	EQUINE MEAT	JAPAN	68,720
E-42	EQUINE MEAT	FRANCE	6,977
E-42	EQUINE VISCERA	JAPAN	5,000
2-B	POULTRY MEAT	JAPAN	168,792
46	INTESTINES	UNITED STATES	133,325
79	INTESTINES	UNITED STATES	63,180
80	INTESTINES	UNITED STATES	99,173
130	INTESTINES	UNITED STATES	39,720
4	PORCINE PELLET	UNITED STATES	716
4	PORCINE PELLET	HONDURAS	3
		TOTAL Kg	**1,368,629**

EXPORT OF MEAT PRODUCTS AND BY-PRODUCTS

1994 MAY REPORT.

T.I.F. PLANTS NUMBER	TYPE OF PRODUCT	COUNTRY	TOTAL KILOGRAMS
2-A	BOVINE MEAT	JAPAN	39,169
3	BOVINE MEAT	UNITED STATES	15,446
45	BOVINE MEAT	UNITED STATES	19,323
86	BOVINE MEAT	UNITED STATES	1,764
86	BOVINE MEAT	JAPAN	16,394
114	BOVINE MEAT	VENEZUELA	40,764
125	BOVINE MEAT	UNITED STATES	43,284
149	BOVINE MEAT	UNITED STATES	90,163
49	PORCINE MEAT	JAPAN	9
57	PORCINE MEAT	JAPAN	67,996
66	PORCINE MEAT	JAPAN	129,665
74	PORCINE MEAT	JAPAN	134,567
81	CARNES DE PORCINO	JAPAN	34,023
74	PORCINE VISCERA	JAPAN	1,260
E-33	EQUINE MEAT	BELGICA	97,985
E-42	EQUINE MEAT	BELGICA	33,441
E-42	EQUINE MEAT	JAPAN	46,015
E-42	EQUINE MEAT	FRANCE	5,460
E-42	EQUINE VISCERA	JAPAN	1,660
2-B	POULTRY MEAT	JAPAN	240,450
46	INTESTINES	CHINA	20,303
46	INTESTINES	UNITED STATES	152,505
79	INTESTINES	UNITED STATES	42,427
80	INTESTINES	UNITED STATES	113,523
130	INTESTINES	UNITED STATES	52,694
4	PORCINE PELLET	GUATEMALA	9,240
145	PORCINE PELLET	GUATEMALA	36,312

TOTAL Kg	**1,485,842**

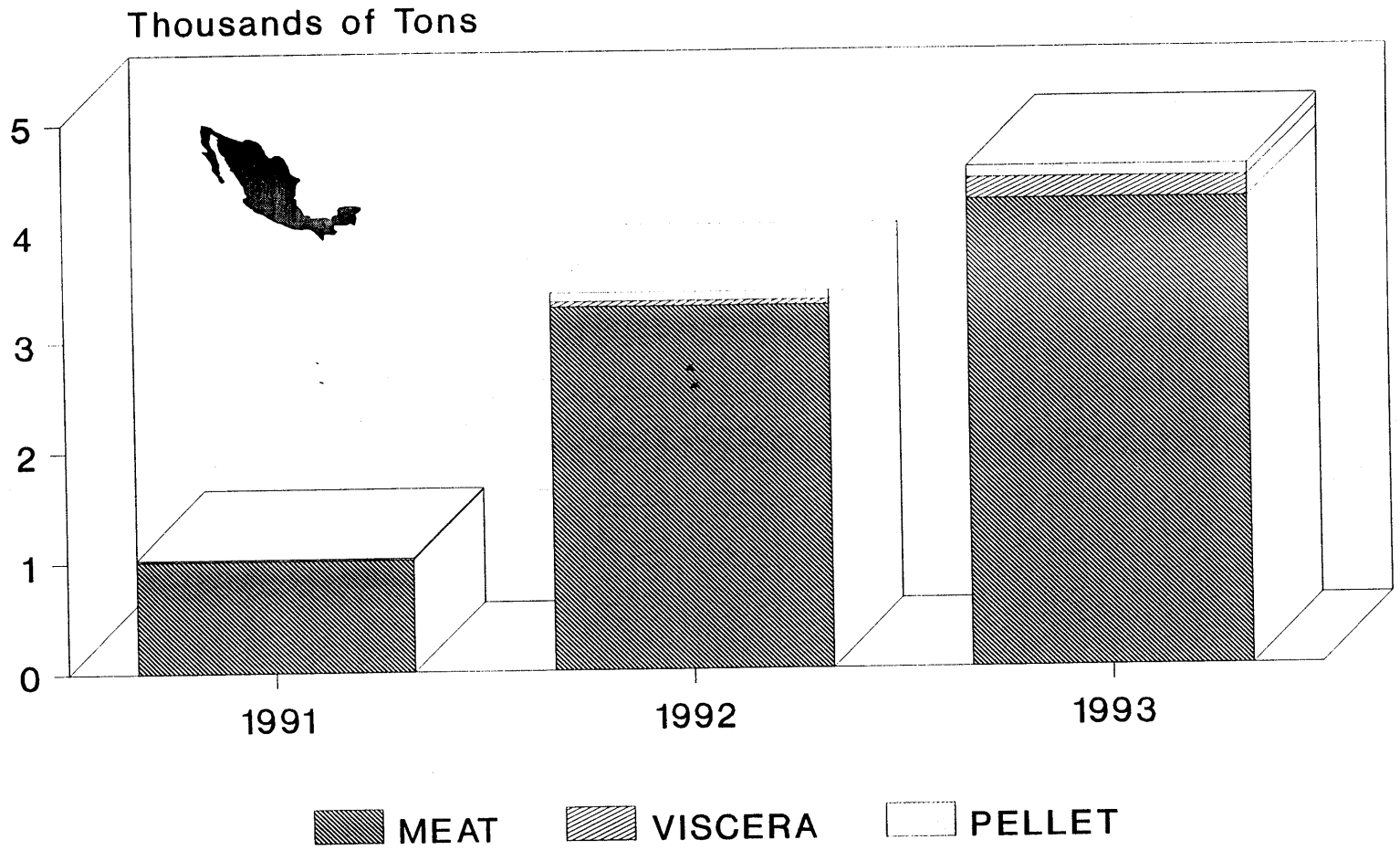
EXPORT OF MEAT PRODUCTS AND BY-PRODUCTS

1994 JUN REPORT.

T.I.F. PLANTS NUMBER	TYPE OF PRODUCT	COUNTRY	TOTAL KILOGRAMS
2-A	BOVINE MEAT	JAPAN	41,344
2-A	BOVINE MEAT	UNITED STATES	3
3	BOVINE MEAT	UNITED STATES	17,899
86	BOVINE MEAT	UNITED STATES	8,960
86	BOVINE MEAT	JAPAN	33,188
125	BOVINE MEAT	UNITED STATES	24,591
149	BOVINE MEAT	UNITED STATES	53,605
2-A	BOVINE VISCERA	JAPAN	7,064
57	PORCINE MEAT	JAPAN	101,423
66	PORCINE MEAT	JAPAN	85,671
74	PORCINE MEAT	JAPAN	136,227
81	PORCINE MEAT	JAPAN	17,023
E-33	EQUINE MEAT	BELGICA	87,707
E-42	EQUINE MEAT	BELGICA	42,066
E-42	EQUINE MEAT	JAPAN	23,300
E-42	EQUINE MEAT	FRANCE	2,725
E-42	EQUINE VISCERA	JAPAN	700
2-B	POULTRY MEAT	JAPAN	168,468
46	INTESTINES	CHINA	40,648
46	INTESTINES	UNITED STATES	161,131
79	INTESTINES	UNITED STATES	40,213
80	INTESTINES	UNITED STATES	96,727
130	INTESTINES	UNITED STATES	57,177

TOTAL Kg	1,247,860

EXPORT OF SWINE MEAT PRODUCTS AND BY-PRODUCTS



3. **Veterinary biologics exports during the last three years:**
   - **names of receiving countries**
   - **number of shipments certified for export**
   - **number of shipments with certification problems**
   - **number of shipments rejected.**

R. Exports of swine biologics during the last three years were:

YEAR	DOSES OF CSF VACCINE	BACTERIAL DOSES	SHIPMENTS
1991	4,509,000	17,000	73
1992	4,093,050	1,772,150	81
1993	6,184,925	3,334,090	61

There were no shipments with certification problems. Two shipments were rejected because of customs clearance problems, which were replaced and sent again.
Countries importing biologics in the last three years were: Argentina, Colombia, Costa Rica, Ecuador, El Salvador Philippines, Guatemala, Honduras, Hong Kong, Korea, Nicaragua, Peru, Singapore, and Thailand.

4. Are there any countries which have recognized Sonora or other states in Mexico as being free of hog cholera? If yes, please provide a list.

R. Yes, Japan recognizes Sonora as a classical swine fever free zone.

VACCINATION

1. When was hog cholera vaccine last officially or legally used in Sonora? How do you ensure it is no longer being used?

R. In northern Sonora it was in 1978, and in the south in 1989 (Appendix 8). Routine serological surveys are done to confirm the absence of the classical swine fever virus. This is described fully in the documents under item V, paragraph a), **Clinical Surveillance on Farms.**

2. Where are the laboratories that currently produce hog cholera vaccine located?

R. Location of laboratories that produce classical swine fever vaccine:

Smithkline Beecham Farmacéutica, S.A. de C.V.
Calle Sevilla No. 521
Col. Portales
03300, México, D. F.
Tel: 605-0458 and 604-4785

Química Hoechst, S.A. de C.V.
Calle Tecoyotitla No. 412
Col. Hacienda de Guadalupe Chimalistac
01050, México, D. F.
Tel: 548-6600

Productora Nacional de Biológicos Veterinarios
Calle I. Zaragoza No. 75
Col. Lomas Altas
11950, México, D. F.
Tel: 570-0400

Lapisa, S.A. de C.V.
Carretera La Piedad-Guadalajara Km 5.5
59300, La Piedad, Mich.
Tel: (91-352) 615 99

Laboratorio Sanfer, S.A. de C.V.
Calz. Tlalpan No. 550
Col. Moderna
03510, México, D.F.
Tel: 590-0542 and 590-0266

Anchor, S.A. de C.V.
Calle 309 No. 2614
Zona Industrial
44940, Guadalajara, Jal.
Tel: (91-3) 612-5258

Diamond Laboratories de México, S.A. de C.V.
Km. 9.5 Carretera Tlalnepantla de Villa del Carbón
54500, Atizapán de Zaragoza. Edo. de México
Tel: 822-0047 and 822-0595

Bio Zoo, S.A. de C.V.
Carretera a Santa Ana Tepatitlán No. 2200
45100, Zapopan, Jal.
Tel: (91-3) 84-0135 and 84-3968

Litton de México, S.A. de C.V.
Av. Cuauhtémoc No. 975
Col. del Valle
03100, México, D. F.
Tel: 559-6565

3. What type of controls are applied in the laboratories?

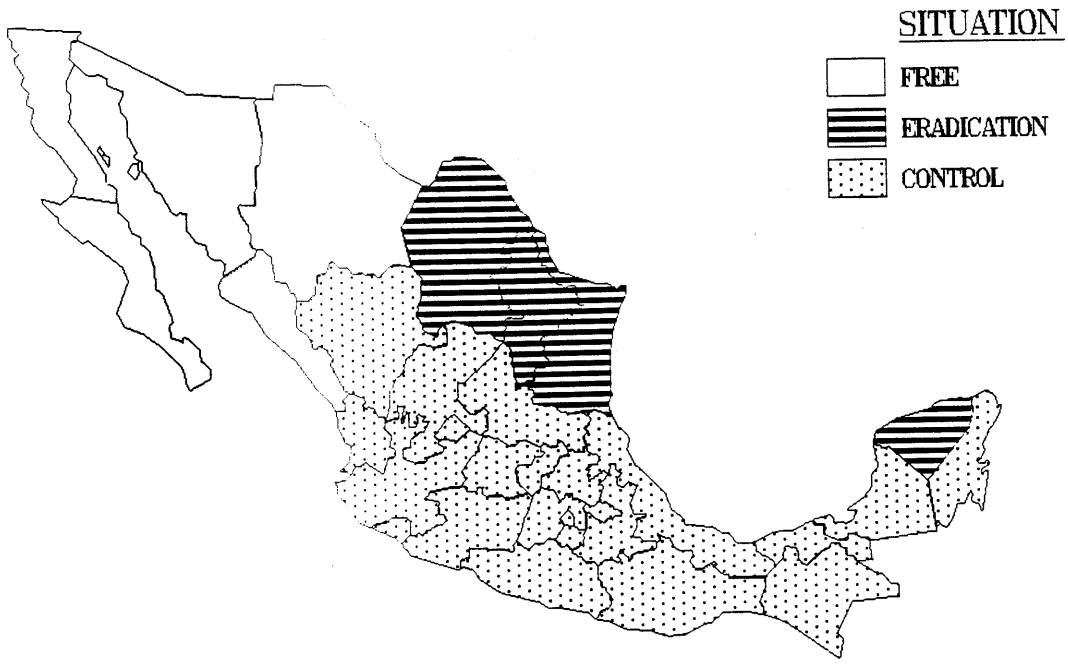
R. These are given in Mexican Official Standard NOM-003-ZOO/1994, Regulations for the Operation of Laboratories Accredited for Animal Health Testing, under item 4, **Technical Competence** (Appendix 15).
Every lot of classical swine fever vaccine made for market is certified by the National Animal Health Diagnostic Services Center (CENAPA) and/or the Virology Laboratory of the School of Veterinary Medicine and Animal Husbandry of the National University of Mexico(UNAM), where official tests are made for: purity, sterility, safety or innocuousness, potency, pH, moisture, and vacuum.

4. In what states is vaccination for hog cholera permitted? Number of doses of vaccine used annually? How are vaccinated animals identified? Provide examples of certification and tag used.

R. In accordance with draft Mexican Official Standard NOM-005-ZOO/1993, National Campaign for the Eradication of Classical Swine Fever, included in the documents, vaccination is permitted in all states in the control phase.

CLASSICAL SWINE FEVER

CURRENT SITUATION



In 1993, 5,610,000 doses were used. No special method of identification is used for vaccinated animals, but there is total coverage. The certificate for a classical swine fever free herd is attached (Appendix 16).

CONTROL MEASURES

1. If an outbreak should occur in Sonora, what procedures would be used for control? Compare them with the national hog cholera eradication program.

R. Depopulation, cleaning and disinfection.

a. Are the procedures different for infected herds vs exposed herds?

R. No, exposed animals in the focal area of the outbreak are also slaughtered. In the perifocal area, the hogs are monitored and are slaughtered only if a case occurs.