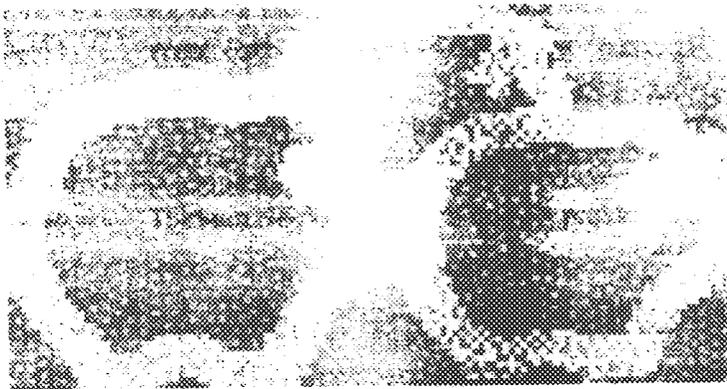




REPUBLIC OF CHILE
MINISTRY OF AGRICULTURE
AGRICULTURE AND LIVESTOCK SERVICE
DEPARTMENT OF LIVESTOCK PROTECTION
SUBDEPARTMENT OF EPIDEMIOLOGICAL SURVEILLANCE

CLARIFICATION OF INFORMATION REQUEST FOR RECOGNITION OF A REGION



CHILE: A COUNTRY FREE FROM CLASSICAL SWINE FEVER

NAME OF REQUESTING COUNTRY: CHILE

JANUARY - 2000

CLARIFICATION OF INFORMATION REQUESTED FOR RECOGNITION OF A REGION

Name of requesting Region: CHILE

Date questionnaire completed: enero de 2000

Requesting Region: describe the geographical boundaries and territory from which exports are planned.

Geographical Location: Chile is a country belonging to three continents, as its territory lies within South America, Antarctica and Oceania. It is situated on the southwestern part of the Southern Cone of South America, extending onto the Antarctic Continent and reaching Easter Island, in Polynesia. Moreover, its territory includes the Juan Fernandez Archipelago and San Felix, San Ambrosio and Salas y Gomez Islands. Its lengthy and narrow shape causes a great diversity of landscapes, climates and flora. Its geography is uneven and mountainous, and it is decorated with a great number of rivers, lakes and lagoons. (Appendix 1)

<i>Boundaries:</i>	North: Peru, East: Bolivia and Argentina, South: South Pole, West: Pacific Ocean.
<i>Area:</i>	756,096.3 km. ² (*)
<i>Population:</i>	14,622,354 inhabitants
<i>Language:</i>	Spanish (Other Languages: Mapuche, Quechua, Aymara and Pascuense)
<i>Administrative Division:</i>	Thirteen Regions (divided into 51 provinces and 335 municipalities): Tarapaca (I Region) Antofagasta (II Region) Atacama (III Region) Coquimbo (IV Region) Valparaiso (V Region) Libertador General Bernardo O'Higgins (VI Region) Maule (VII Region) Biobio (VIII Region) La Araucania (IX Region) Los Lagos (X Region) Aysén del General Carlos Ibañez del Campo (XI Region) Magallanes y Antartica Chilena (XII Region) Metropolitana de Santiago (Metropolitan Region)
<i>Capital:</i>	Santiago (Metropolitan Region)

*Excludes Chilean Antarctic Territory (1,250,000 km.²) and inner seawaters.
Source: National Institute for Statistics (INE), Statistical Abstract 1997.

Adjacent Regions:

North: Peru, separated by an area of desert
East: Bolivia and Argentina, separate by Andes Mountains
South: South Pole
West: Pacific Ocean.

Animals and/or animal products:

List the animal and/or animal products for which exports are planned. Include on the list the estimated quantity per year of each commodity.

Type of Product	Kgs.
◆ Pork in carcasses or half carcasses (fresh, refrigerated or frozen)	4946177
◆ Pork in hams, yokels and their pieces, without boning (fresh, refrigerated or frozen)	7876438
◆ Hams, yokels and their pieces without boning salted, dry or smoked)	250759
◆ Preparations and pork preserves	224780
◆ Pork spoils, fresh, refrigerated or frozen livers	4884925
◆ Depilated pig skins	4969
◆ Bacon bellies intermixed (panceta) and their pork pieces	11755
◆ Animals (Units)	30.000

A fraction of the figures expressed in the previous chart is considered as possibly representing future exports to United States.

List the pest or diseases and species, which may be of concern with the proposed exports.

CHILE, 1998

LIST A DISEASES

Diseases	Animal health status
Foot and Mouth disease	(1987)
Vesicular Stomatitis	0000
Swine vesicular disease	0000
African swine fever	0000
Classical swine fever	(1996)

LIST B DISEASES

Multiple species

Diseases	CHILE
Anthrax	+ ()
Aujeszky disease	0000
Echinococcosis/hydatidosis	+
Heartwater	0000
Leptospirosis	+
Q fever	-
Rabies	+(fau)

Swine

DISEASES	CHILE
Atrophic rhinitis of swine	+
Porcine cysticercosis	+
Porcine brucellosis	(1987)
Transmissible gastroenteritis	0000
Trichinellosis	+
Enterovirus encephalomyelitis	0000
Reproductive/respiratory syndrome	-

CODES:

- 0000 Disease never reported
- Disease not reported (date of last outbreak not known)
- ? Disease suspected but presence not confirmed
- year Date of the last reported occurrence of the disease in previous years
- + Reported present or known to be present
- 0 Disease limited to specific zones
- +? Serological evidence and/or isolation of the causal agent, but no clinical signs of disease.

- *For each disease and species, answer the following questions (1-11): Note: It is not necessary to repeat information that does not vary by disease and species.*

1. *The authority, organization, and infrastructure of the veterinary services organization in the region.*

STRUCTURE OF THE OFFICIAL VETERINARIAN SERVICE

Organization and structure of the Agriculture and Livestock Service (SAG)

Agriculture and Livestock Service (SAG) is a non-centralized organization, which has a legal constitution and a patrimony of its own. It is responsible to the Ministry of Agriculture, and its mission is to support the enhancement of competitiveness, sustainability and equity level within the forest, agriculture and cattle sectors, through improvements to the condition of the state of production resources related to sanitary, environmental, genetic and geographic dimensions, and nutrition quality development.

In order to fulfill its duties, the Service exhibits a nationwide coverage, and it has founded its organization, basically on three structural levels

Strategic	Central ruling level
Tactical	Regional Coordination level
Operative	Sector Executive level

Superior direction, organization and administration of the Service are duties of its National Director, who is at the same time its legal representative. The central level is composed of five Technical Departments: Agriculture Protection, Livestock Protection, Renewable Natural Resources Protection, Seed, and Laboratories and Quarantine Stations. It also has six Counseling Departments: Juridical, Planning and Studies, Internal Controlling, International Affairs, General Secretary and Administration and Finance.

Coordination and execution of the various programs carried out by the Service are geographically and functionally distributed according to the administrative division of the country, among the 13 regions; which develop their activities through 62 Sector Offices. (Appendix 2)

The Animal Health Authority within the Republic of Chile settles on the Agriculture and Livestock Service, which enforces it through its Livestock Protection Program (Appendix 3), committed to the development of the country's cattle patrimony through protection, care and improvement of animal health, sanitary quality and harmlessness of the subsection's products, by-products and consumable goods, as well as collaborating with the development and consolidation of the cattle industry and technology in order to support the productive exporting efforts made by the subsection and the country.

In order to accomplish this mission, three areas have been defined to develop the program's tasks

1. **Zoosanitary:** with constant monitoring actions, Defense and Laboratory Diagnosis, and sanitary improvement through disease control and eradication programs (brucellosis, hydatidosis, and goat health).
2. **Sanitary Quality:** through control and certification of exportable products and by-products, residue monitoring and control of cattle products, registry and control of biological and pharmaceutical products for veterinarian use.

3. **Cattle Industry and Technology:** collaborating with technological development and consolidation of cattle industry, proposing rules and standards related to the quality of milk and its sub-products, enforcing the Law on Meat Classification and standardization and the rules concerning control of animal feed.

The Ministry of Health holds Public Health authority in Chile, through its Health Agencies System (27 Agencies cover the whole national territory). Among its functions, it authorizes controls and guarantees that all the products reserved for human consumption are elaborated under a proper sanitary condition, granting permission to abattoirs and processing plants that elaborate cattle products for domestic consumption.

- Describe the veterinary force available in the region for carrying out regulatory programs for livestock disease. Include the number of personnel classified by educational/training status and geographic area and the total number of personnel

a) *Number of veterinary medical officers (federal, state)?*

The table below exhibits the Service's personnel endowment:

TABLE N° 1.
NUMBER OF PROFESSIONALS OF THE OFFICIAL VETERINARIAN SERVICE

REGION	PROFESSIONALS
I	3
II	1
III	3
IV	3
V	12
R.M.	23
VI	6
VII	9
VIII	14
IX	12
X	23
XI	7
XII	10
N.C.	48
TOTAL	174

b) Number of animal health technicians (federal, state)?

TABLE N° 2
TECHNICAL PERSONNEL

REGION	TECHNICAL PERSONNEL
I	21
II	3
III	3
IV	8
V	29
R.M.	21
VI	7
VII	21
VIII	21
IX	12
X	27
XI	9
XII	10
N.C.	21
TOTAL	213

c) Number of practitioners authorized to do federal program work?

A registration of Accredited Veterinary Doctors exists to work in the Program of Eradication of Brucellosis whose number according to regions is expressed in the following chart.

TABLE N° 3
ACCREDITED VETERINARIANS

REGION	PROFESSIONALS
I	0
II	0
III	0
IV	0
V	17
R.M.	33
VI	25
VII	45
VIII	53
IX	118
X	282
XI	1
XII	0
N.C.	0
TOTAL	571

d) Any penalties for noncompliance or fraud by authorized practitioners (how is compliance assured and if abused, what are the penalties)?

The penalties for non fulfillment or fraud can give origin to judicial demands in the Civil Justice and to the loss of the condition of being accredited.

The verification or validation of the activities of the accredited veterinary doctors is the responsibility of the inspectors of the Official Veterinary Service

- **What laws, regulations and policies are in effect (copies should be provided, English translation required)? For example, is waste feeding permitted and, if so, what restrictions apply (such as cooking the waste to specific temperatures and duration)?**

The Law of Animal Sanitation DFL RRA N°16 1963 (copy is attached in (Appendix 4)

Regulation for the eradication of the Classic Swine Fever, N°32, of date 19.02.96. (Copy is attached in English in (Appendix5)

- Recast text of the Organic Law of the SAG that establishes norms on the Agricultural Service and Cattleman (Law N°18.755 of January 07 1989 and Law N°19.283 of January of 1994, 05 modification of the previous one).
- With regard to the feeding with waste in the Regulation for the eradication of the Classic Swine Fever in Article N°5 it is pointed out that the feeding of pigs with waste of animal origin, coming from slaughterhouses, restaurants, hospitals, casinos or other establishments is prohibited, unless by express and founded resolution authorized by the Service." Also it prohibits to feed pigs with waste coming from places of final disposition of garbage."
- **What veterinary administrative units are used in the region? (Administrative units are definable geographic areas, which veterinary control can be established and for which border control can be established. Examples are counties, states, provinces, etc.)**

The basic veterinary administrative unit is the Local SAG Office, 62 throughout the whole country, located in the 13 regions, territorially they can embrace several Communities in the country, especially, in the extreme regions (I, II, III, IV, XI, XII) they include the whole Region. (Appendix 6)

2. Pest or Disease status of the region.

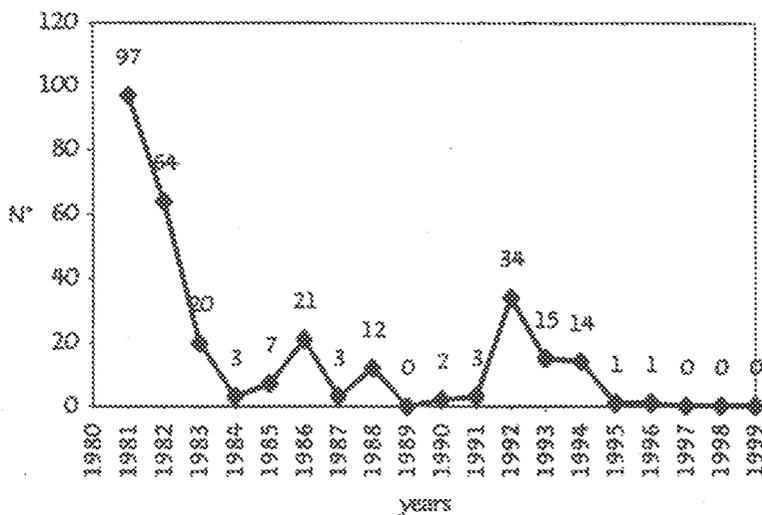
What geographic and environmental characteristics of the exporting region may influence the status of the pest or disease agent in the region?

- **What is the history of the number of outbreaks of the pest or disease in the region? Provide numbers for the current year and each past year for which you have records or can make reasonable estimates (Note: the term outbreak refers to the occurrence of the disease on an individual premise)**
- **For each outbreak that has occurred within the last five years, the following information**

is needed (Note: either provide information from your records or, if not available, give your best estimates and the evidence and reasoning that supports your estimate):

TABLE N° 4

Number of outbreaks of Classical Swine Fever (CSF), period 1981-1998, Chile



Timing of detection and control:

a) *Date there was suspicion of infection on the premise?*

Outbreak 1995: May 10, 1995
 Outbreak 1996: July 21, 1996

b) *Date premise was confirmed as infected?*

Outbreak 1995: May 15, 1995
 Outbreak 1996: August 1, 1996

c) *Date premise was quarantined (Note: this date may precede the date of confirmation if the premise was in a control zone established because of confirmation on other premises)?*

The family pig farms suspected of Classic Swinish Fever were left in quarantine from the 11.05.95 (Outbreak 1995) and 21.07.96 (Outbreak of 1996).

k) Was this premise within a previously established control zone at the time infection was detected? What evidence is there to support this conclusion?

The whole national territory was under the Program of Control and Eradication of the Classic Swine Fever.

l) How was the outbreak detected?

- Outbreak of 1995: it was notified by the owner of the pigs
- Outbreak of 1996: it was detected on a routine visit by the official inspectors of the town of Quillagua

m) What was the source of infection?

- Outbreak of 1995: the most probable source in infection was through waste brought to the town.
- Outbreak of 1996: it originated with a female virus carrier that cohabited with pigs of the outbreak of 1995, because the affected pigs of this focus were not slaughtered in accordance with regulations in force at this date.

n) How many animals or birds were on the infected premise, categorized by type of animals or birds (such as male breeding, female breeding, pre-weaned, feeder (post-weaned but not finisher), fattening, and total number)?

- Outbreak of 1995: 2 breeding female
10 pigs
8 piglets
1 breeding male
21 pigs in total

Outbreak of 1996: 4 breeding female
4 piglets
9 pigs being fattened
17 pigs in total

Response and control:-

o) What actions (if any) were taken subsequent to discovery of this outbreak including dates of each action (quarantine, depopulation, control zones established (a precise geographic description of the control zones is needed), distribution or products curtailed from area)?

- Outbreak of 1995: Quarantine from the 11.05.95
Vaccination in ring
Permanent Epidemic surveillance until November of 1995.
- Outbreak of 1996: Quarantine from the 21.07.96
Slaughtering of all the pigs of familiar exploitation. 13.08.96.
Permanent epidemic surveillance until 30.12.96.

p) How long after the outbreak occurred were operation restrictions (if any) removed on this premise? (Describe and state rationale for removing restrictions)?

- Outbreak of 1995: November of 1995
- Outbreak of 1996: December of 1996

For each affected administrative units (areas in the region that have had outbreaks) in the region, provide demographic information for current year and each year of the last five in which outbreaks have occurred. (Note: either provide information from your records or, if not available, give your best estimates and the evidence and reasoning that supports your estimate):

a) Total number of premises (number of herds or flocks, not just those infected) categorized by type of operation such as:

- (1) Specialized breeder of genetically defined breeding stock.
- (2) Multiplier type of breeding operation, not including those described in (1)
- (3) Fattening or finished operation.
- (4) Artificial insemination center.
- (5) Other point of concentration such as slaughter house, market, or sale barn

- Outbreak of 1995: during this focus in the town of Quillagua had 13 proprietors, all the establishments corresponded to family farms.
- Outbreak of 1996: during this focus in the town of Quillagua had 15 proprietors, all the establishments corresponded to family farms.

b) What is the average number of animals per premise (herd or flock), categorized by type of operation?

- The average number of animals per lot in 1995 was 15 pigs.
- The average number of animals per lot in 1996 was 17 pigs.

c) Describe change over time of these demographics (if any)?

The dynamic population in this productive stratum doesn't vary significantly, staying constant in time

3. Pest or Disease status of each adjacent region.

- What geographic and environmental characteristic of the exporting region may influence the status of the disease or pest in the adjacent region?
- What is the history of the number of outbreaks of the disease in the adjacent region? Provide numbers for the current year and past year for which you have

records or can make reasonable estimates (Note: the term outbreak refers to the occurrence of the disease on an individual premise).

The prevalence of the disease is ignored in the adjacent countries; nevertheless it is assumed that it is endemic for all our analyses of risk. One has the information of the Situation Zoosanitaria and methods of control of the animal diseases, of the International Office of Epizootic (OIE) whose information is the following:

**TABLE N° 5
CHILE : SITUATION OF CSF IN BOURDERING COUNTRIES**

Country	Year	N° of focuses of CSF	Cases	Dead
Argentina	1994	1	...	...
	1995	1	...	...
	1996	0	0	0
	1997	0	0	0
	1998	7	107	50
Bolivia	1994	...	...	...
	1995	...	...	...
	1996	...	...	...
	1997	0	0	0
	1998	1	6	3
Peru	1994	18	...	...
	1995	35	...	...
	1996	9	...	...
	1997	7	586	583
	1998	16	273	134

Source : OIE Informations.

- *What analyses have been done, or what evidence has been compiled, regarding the relevant disease or pest situation in each region that is adjacent to, or in close proximity to, the requesting region? Please provide copies.*

The attached annexes contain the Risk Analysis carried out in regional training courses (SAG).

4. Disease control program of the region (if agent exists or recently existed in region)

- *What is the extent of an active disease control program?*

Lines of action of the project for Classical Swine Fever eradication in Chile:

Sanitary control: to control every situation that poses a risk of dissemination of the infection agent, taking all the measures necessary to prevent it.

Legislation: to have adequate legislation according to the needs of the project, allowing its easy interpretation and enforcement.

Training: to achieve that the Veterinary participating in the project receives the necessary training to carry out the tasks assigned to them.

Administration: to set up and maintain different procedures that allow programmed activities to be carried out fluently, making necessary resources available in time.

Biostatistics and evaluation: to set up and maintain an information system that permit permanent knowledge of the evolution of the disease and the functioning of the project with respect to the activities performed and the degree of fulfillment of goals and objectives.

Studies and Monitoring: to know the evolution of factors that condition the occurrence of the disease and to evaluate the risk of dissemination and introduction of the agent.

Sanitary education: to enhance the degree of knowledge of the disease among the community in order to improve their denunciation and support to the project's actions.

At the moment, the disease is considered exotic for the country, therefore there is a law in force with a program of systematic active surveillance in areas of risk and attention to accusations of suspicions of disease.

• *What epidemiological investigations are done to trace the source of infection?*

Due to the fact that the characterization of the viral source for CSF was closely related to the industrial pig facilities, during the 1994-1996 term systematic sampling was performed at abattoirs, among female waste material at all industrial premises, aiming to detect premises with viral infection.

The statistical sampling design considered two types of facilities, those with a history of old infection and another group with a history of recent infection. For the first one it was considered prevalence farms of 0,5% (95% of reliability) and for the second critical prevalence farms of 1% with a reliability of 95%.

During that time a total 21.970 samples were processed in the laboratory. Only six premises were detected as infected by the virus without having symptoms of the disease. Four of them were premises that had had outbreaks in 1993, one had had outbreaks in 1986 and the last one had not had the disease before.

Aiming to define the situation of the premises that had historical positive diagnosis, and considering that afterwards they had had sampling with negative results, a Vigilance Process was performed on all of them.

Table N°6
SAMPLING OF ORGANS OF FEMALE PIG WASTE MATERIAL (IFD METHOD) AT ABATTOIRS,
BROKEN DOWN BY REGIONS AND BY YEARS.

<i>Region</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>	<i>Total</i>
V	18	688	354	1060
R.M.	1294	5804	1221	8319
VI	1356	2522	1109	4987
VII	2054	1618	1380	5052
VIII	281	573	1065	1919
IX	188	206	239	633
	5191	11411	5368	21970

Source: Livestock Laboratory SAG

VIGILANCE PROCESS ON PREMISES

As an overview, the process consisted of using groups of non-vaccinated pigs, identified and distributed evenly among the different yards within the production barn. These pigs were kept in that condition upon their shipment to the slaughterhouse, so they shared the same place with other vaccinated pigs throughout the different stages of usual operation in the industry (motherhood, breeding and fattening) for at least three months.

These groups were serum-tested on the 60th day (breeding stage), 100-110th day (breeding stage) and a third test 15 days before they were sent to the slaughterhouse (160 or more days, fattening stage). Along with this, samples from organs from these pigs were collected at the slaughterhouse to perform laboratory tests. Results of this vigilance process proved the absence of viral activity on these premises.

TABLE N° 7
VIGILANCE PROCESS ON PREMISES, BROKEN DOWN INTO REGIONS, 1996

<i>Region</i>	<i>Premise</i>	<i>Groups</i>	<i>Pigs in each group</i>	<i>Total of pigs</i>
R.M.		4	10	40
		3	10	30
VI		5	10	50
VII		6	10	60
		3	10	30
		3	10	30

Source: Project for Control and Eradication of CLASSICAL SWINE FEVER

Additionally, serological research was performed on a representative sample from small pig farmers in regions I to IV, XI XII and, for a critical prevalence of 0.5% with 99% of reliability in the estimate, which did not show the presence of antibodies, which indicates that these non-vaccinated pigs have non viral activity nor have had contact with CLASSICAL SWINE FEVER virus.

TABLE N° 8
 SEROLOGICAL RESEARCH (ELISA) ON SMALL PIG FARM OPERATIONS, CHILE, 1996

Region	Number samples	of Results
I	179	Negative
II	173	Negative
III	151	Negative
IV	39	Negative
XI	388	Negative
XII	125	Negative
TOTAL	1055	

Source: Livestock Laboratory SAG

When the decree on prohibition to vaccinate against CLASSICAL SWINE FEVER came into force, it was decided in 1998 to establish a survey system to ensure this prohibition was complied with at every pig operation. In fattening pigs, non-positive will be should be detected. The tables below show the results of the survey:

The statistical design contemplated a critical prevalence of 0.5%, with 99% of reliability in the estimate, being distributed the samples in aleatory form, according to facility and region.

TABLE N° 9
 SEROLOGICAL SURVEY (ELISA) ON FATTENING PIGS, 1998

Category	Region	Total of samples	Results	
			Positive	Negative
Fattening	II	10	0	10
Fattening	V	309	0	309
Fattening	R.M.	855	0	855
Fattening	VI	769	0	769
Fattening	VII	320	0	320
Fattening	VIII	370	0	370
Fattening	IX	108	0	108
Fattening	X	6	0	6
	Total	2557	0	2557

Estimations were that only breeding females could exhibit some degree of serological reactions because of their immune memory generated in past vaccinations, a situation that was verified when being detected a female whit serology positive. In the regions where the productive system is more intensive (R.M., VI and VIII) where the industrial facilities of the elite are located, these percentages were smaller, due to the discharge it appraises of the mothers' replacement, contrary to the other regions in that the percentages of persistence by heart immunologic vaccine was bigger.

The design contemplated a critical prevalence of 0.5% with 99% of reliability in the estimate.

TABLE N° 10
 SEROLOGICAL SURVEY (ELISA) ON BREEDING FEMALES, 1998

Category	Region	Total of samples	Results	
			Positive	Negative
Breeding females	V	263	51	212
Breeding females	R.M.	305	2	303
Breeding females	VI	674	8	666
Breeding females	VII	194	88	106
Breeding females	VIII	247	37	210
Breeding females	IX	40	25	15
Breeding females	XII	37	1	36
Total		1760	212	1548

- *Are infected or exposed animals or premises quarantined and if so, for how long?*

The disease is exotic; therefore it does not correspond to the situation of the country. When the disease was present quarantine of the establishment settled down.

- *Are infected premises monitored, and if so, how?*

The disease is exotic; therefore it does not correspond to the situation of the country. In the last stage of the Program of Control and Eradication, when the disease was present the procedure also included systematic surveillance of the establishment and of the products of these, with animals only going out to the slaughterhouse and sampling of adequate tissues for laboratory diagnosis in the carcass of origin.

- *Does what test are performed prior to releasing the quarantine on affected premises?*

The disease is exotic; therefore it doesn't correspond to the situation country. Previously to this stage was carried out checkups for laboratory diagnosis, until verifying the absence of viral activity.

- *What procedures are used to clean up affected premises?*

The disease is exotic for the country; therefore it doesn't correspond to the situation country. It was used in the past in the case of focus measures of cleaning and disinfection, using laundry with waterpumps, applying temperature and pressure; it stops later on to puivenze with iodine.

- *What treatment regimes are followed?*

In the last focus sanitary slaughter of sick animals and contacts was used, with disinfection of the facility.

- *What breeding practices are followed?*

Intensive system: It intends to express the maximum of the genetic potentiality of the animals in bordering, expressed in the delivery of alimentary energy for the transformation in meat, behaving as a closed ecosystem that is the case of the industrial exploitations.

Extensive system: it works without energy incorporation or external technology. That micro ecosystem transforms the remains of foods generated in the agricultural operation, behaving as an open ecosystem.

The most sensitive to the external means is the intensive ecosystem, for the active incorporation of technologies (semen, embryos, etc). On the other hand the extensive ecosystem is more dependent of the intensive or industrial system in terms of disease.

- *If depopulation is used, how are carcasses disposed of (are they salvaged at abattoirs)?*

The depopulation has not been used in the last focuses; the procedure is the sanitary slaughter of sick animals and contacts, disinfection of facilities, destruction of cadavers.

- *If so, what are the sources of this indemnity?*

An insurance was bought, which would allow to pay off the losses generated by the death or killing of animals, in the case of a CLASSICAL SWINE FEVER outbreak. Just as with the vaccine bank, the cost of this insurance is assumed completely by the Association of Pig Producers (ASPROCER).

- *Have premises, thought to have been cleaned, later been found to still be affected?*

In the focus of 1995 they were animal carriers, They were the origin of focus of 1996.

5. Vaccination status of the region.

- *Is the ownership and use of vaccine allowed?*

The vaccination is prohibited in the whole national territory.

- *When was the last vaccination?*

Faced with a favorable scenario to achieve the eradication of the CSF, it is decided to prohibit the vaccination in the whole national territory starting from October 06 1997.

- *What is the extent of vaccination if it is currently used?*

During the time the use of the vaccine was authorized, in any moment the vaccination was obligatory, since the handling, application and commercialization of the same, were always in charge of the private sector. However, the official authorization of distribution and use of the vaccine CSF was always conditioned to the execution of the normative one that regulated the registration of the biological products. What is more, the biological quality of each series or lot of the product should be previously endorsed by studies and controls of quality, according to specific requirements set down in legal regulations for those effects.

• *What types of vaccine (live, modified, killed) are used?*

The Plan of Control and Eradication of CSF, considered the vaccine use for the private sector authorizing stops this effect only the stump Chinese lapinizada of Classic Swine Fever (modified live virus), to object of controlling the clinical disease and subclinic in regions where this was endemic, strengthening the immunity of the national swinish population's mass and to diminish in some degree the incidence of carriers.

• *Who may vaccinate (herd owners, veterinarians, etc.)?*

At all times the vaccination was of responsibility of the private sector and this was not obligatory.

• *Do are records kept on the it uses of vaccine?*

The number of doses of Classic Swine Fever approved for its use in the period 1981-1997 is detailed in the following chart:

TABLE N° 11
VACCINES CLASSICAL SWINE FEVER (SERIES AND DOSES CONTROLLED) 1981-1997
TERM.

Year	Source	Series controlled	Series approved	Doses controlled	Doses approved	Doses rejected	Reason
1981	National	10	10	1049190	1049190		
1982	National	7	7	672250	672250		
1983	National	11	10	904810	811310	93500	IFD+
1983	Imported	2	2	1050	1050		
1984	National	12	9	1080950	834450	246500	Efficacy
1985	National	8	7	1365500	1146300	219500	Efficacy
1986	National	8	7	1291140	1147140	144000	Efficacy
1987	National	8	8	2060100	2060100		
1988	National	7	7	1770530	1770530		
1989	National	10	9	2169200	1666900	302300	IFD+
1989	Imported	1	1	740	740		
1990	National	6	6	2066370	2066370		
1991	National	9	8	2437730	2066370	400000	Efficacy
1992	National	8	8	2765450	2765450		
1993	National	9	9	2765870	2765870		
1994	National	8	8	2677360	2677360		
1995	National	10	10	3517820	3517820		
1996	National	6	6	2006720	2006720		
1997	National	6	6	2060300	2060300		
Total		146	138	32663080	31286220	1405800	

• *Who produces the vaccine?*

The production and elaboration of CSF vaccine was the responsibility of commercial laboratories, and its use and authorization depended at all times on the execution of the regulations imposed by the Agricultural and Livestock Service.

- *Is the administration of serum permitted and if so, by whom and under what conditions?*

No, the administration of serum hiperimmune was never inside the strategy of combat of the disease; its use was also never authorized.

6. Separation of the region from higher risk regions

- *To what degree is the region separated from regions of higher risk through physical or other barriers?*

Chile is separated from its bordering countries by physical barriers like the Andes mountains to the East (Argentina - Bolivia), and by the desert like area and highland to the North (Peru - Bolivia), to the West it limits with the Pacific Ocean, this condition representing the one of being a true continental island, that favors the control programs and eradication of disease, and on the other hand it hinders the introduction of pig diseases from bordering countries.

It is also added a vast net of border controls along the whole country (Appendix 7)

- *What analysis has been done, or what evidences are there to indicate that these barriers are sufficient to prevent entry to the pest or disease agent of concern into the requesting region? Please provide copies.*

TABLE N° 12
REGISTRATIONS OF SEIZURES BY COUNTRY, ACCORDING TO PRODUCT, CHILE, 1997

	Milk (Kg.)	Meats (Kg.)	Cured meats (Kg.)	Birds (N°)	Eggs (Units)	Feather s (Kg.)	Honey (Kg.)	Pollen (Kg.)	Leathers (Kg.)
GERMANY			119,9						
ARGENTINE	744,6	1068,6	2236	35	1083	1	71,3	1	42
BOLIVIA	365,1	469	46,8		65	0,1	24,7		9,5
BRAZIL	14,5	84,5	118,7		583		3		
ECUADOR	10,2	7,9	3						
USA	3,6		7,2						
SCOTLAND			13						
SPAIN	13,4	3,7	690,76				0,8		
FRANCE	0,5		2,4				0,8		
HOLLAND			2,5						
ITALY	3,4	0,2	153,56						
MEXICO			0,4						
PARAGUAY	3,3	9,2	21,8		44		0,7		
PERU	685,5	51,6	13,8	4	56		40		
RUSSIA		3	14,1						
URUGUAY	1,3	2,8	15,3		37		1		
VENEZUELA	1,1								
OTHER COUNTRIES	94,1	117,9	326,7	46					
	1920,8	1818,4	3785,9	85	1868	1,1	142,5	1	51,5

Source: Regional Informs. SAG

7. Movement control and bio-security from higher risk regions.

- ***From what countries or regions does the requesting region import animals or animal products that could potentially carry the pest or disease agent to concern?***

Cured meat products and pork are only imported from countries free of CSF, according to the Resolutions 3397/98 and 2807/96 that fix the sanitary demands for meat imports and cured meats (meat products of pig).

Hams of long maturation are authorized in special form from Spain and Italy according to the Resolutions 2373/97 and 197/97 respectively.

The cooked meat products enter to the country fulfilling the Resolution 395/93, for meat preserves.

A chart is annexed with the meat volumes and meat products imported per year and by country of origin. (Appendix 8)

- ***What security measures are in place at ports of entry to control importation of materials that might carry the disease agent concern?***

Based on the sanitary demands mentioned in the previous point the sanitary certification of origin, it is demanded that the sanitary condition of the country of origin, the type of product, slaughter establishment should be established and also approved elaboration with veterinary medical control.

The cured meat products only come from countries free of CSF and the cooked products are subjected to tests to determine their cooking.

The special hams of long maturation come from establishments enabled to export, which have registrations of elaboration dates.

- ***To what extent is the movement of such commodities controlled from regions of higher risk, and what is the level of bio-security regarding such movements?***

The objective of the control that the Agricultural and Livestock Service (SAG) makes as regards cattle imports, it is to avoid the introduction especially to the country of transferable disease that affect to the different animal species, the exotic diseases.

For it has set down a system of control of the imports of animals, their products and spoils, based on the effective legal dispositions on the matter.

The sanitary demands are specific for each import type epidemically different, understanding each other for such, that in that it varies some of the following factors: animal species, purpose of the import, product type, presentation form, degree and prosecution type.

At the level of border controls it is verified that the sanitary documentation that accompanies the shipment is giving execution to the entirety of the requirements, in the same terms that are established in the sanitary demands, it is informed of the conditions of the means of transport.

The discharge is not authorized when any circumstance is detected that allows suspecting the presence of causal agents of exotic diseases.

• **What test procedures are used?**

Laboratory diagnostics test for exotic diseases

• **Are animals quarantined that may carry the disease agent? If so, for how long and where?**

All the animals that are imported to the country should undergo first a pre-shipment quarantine in the origin country and then to one quarantine period in Chile of at least 30 days. During this period they are observed and they undergo laboratory tests to determine specific absence of infectious agents.

The quarantines are carried out in the Station Cattle Quarantine of SAG or in properties specially approved for such effects, which should fulfill established conditions for this objective.

The detail with the number of reproductives animals imported of the swine specie; is detailed in the following chart:

**TABLE N° 13
NUMBER OF PIGS IMPORT ON FOOT ACCORDING TO ORIGIN AND DESTINATION REGION,
PERIOD 1994-1998, CHILE**

N° Resolution	Date	Barriers	* of animals	Origin	Destination region
94/0307-06	13/07/1994	Aeropuerto CAMB	102	EEUU	VI Región
94/0638-13	22/08/1994	Aeropuerto CAMB	149	EEUU	R. Metropolitana
94/0533-06	24/11/1994	Aeropuerto CAMB	119	EEUU	VI Región
94/0993-13	16/12/1994	Aeropuerto CAMB	30	EEUU	R. Metropolitana
96/0218-13	22/03/1996	Aeropuerto CAMB	28	Canadá	R. Metropolitana
96/0253-06	18/03/1996	Aeropuerto CAMB	69	Canadá	VI Región
97/0341-06	04/06/1997	Aeropuerto CAMB	80	EEUU	VI Región
97/0341-13	04/06/1997	Aeropuerto CAMB	139	EEUU	R. Metropolitana
97/0453-06	05/09/1997	Aeropuerto CAMB	152	EEUU	VI Región
97/0586-13	06/06/1997	Aeropuerto CAMB	34	EEUU	R. Metropolitana
97/0612-06	05/12/1997	Aeropuerto CAMB	71	Inglaterra	VI Región
97/0612-06	05/12/1997	Aeropuerto CAMB	26	Inglaterra	VI Región
98/1386-13	14/10/1998	Aeropuerto CAMB	32	Francia	R. Metropolitana
98/0721-06	23/09/1998	Aeropuerto CAMB	76	Francia	VI Región

• **What documentation is required to accompany animals or animal products imported into the requesting region?**

The sanitary certification that should accompany each departure of animals that are imported to the country should be according to the specific sanitary demands (Resolutions 685/94, 1994/94, 3593/95 and 1066/97), also with the general norms for the import of animals (Resolution N°1254).

The previous permission of import is not demanded, but the importer should have a Resolution that authorizes the place where the animals will carry out the quarantine, to be able to sum up an import.

• *What other procedures are used?*

Sampling for diagnosis of laboratory of exotic diseases.

Analysis of quantitative risk of imports

- *What analysis been have donate, or what evidence is there, does to indicate you that the measures identified above it are sufficient to prevent entry of the pest or disease agent of concern into the requesting region? Does Please provide copy (does it notice: does questions described in this document regarding each of the elevate risk factors may be useful ace guidelines for describing any evidence available regarding higher-risk trading partners or adjacent regions?*

They are attached in annexes (Appendix N°8 and N°9), some examples of Analysis of Risk carried out in the framework of the prevention of entrance of diseases to the country.

8. *Livestock demographics and marketing practices.*

- *How many herds, flocks, etc of relevant species are in the region broken down by operation type such as:*

- (1) *Specialized breeder of genetically defined breeding stock.*
- (2) *Multiplier type of breeding operation, not including those described in (1)*
- (3) *Fattening or finished operation.*
- (4) *Artificial insemination center.*
- (5) *Other point of concentration such as slaughter house, market or sale barn*

TABLE N° 14
PIG LIVESTOCK, CHILE, 1997

Regions	Stock	Share (%)
I	5,150	0.30
II	3,104	0.18
III	2,003	0.12
IV	4,363	0.25
V	76,046	4.43
R.M.	421,661	24.56
VI	519,513	30.26
VII	128,633	7.49
VIII	227,580	13.26
IX	190,933	11.12
X	130,959	7.63
XI	4,034	0.23
XII	2,897	0.17
Total	1,716,881	100.00

Source: National Institute for Statistics (INE).

An only exists genetic facility. FORGEN Ltda was founded in 1978 in that the entirety of the mass has been originated from PIC Main Farm, Wisconsin, United States. with production structure in three states (isowean). The handling of the bio security is according to the norms of USA characteristic of the facilities genetic PIC multipliers.

The average population of this nucleus is around 1200 female reproductives, 30 males reproductive. 1600 pre re raises pigs, 1900 re raises pigs and 6000 pigs in fattening.

This facility supplies from pig genetics to most of the pig industrial facilities of the country, besides other South American countries.

Centers of Artificial Insemination don't exist in the country; nevertheless it is practices it basically of this reproductive handling it is only carried out in some elite industrial facilities.

- *How are they distributed (e.g. herd density, etc)? If possible, break down numbers and types of operations by administrative unit.*

INDUSTRIAL PIG PRODUCTION

It is important to point out that, since the late 70's, domestic pig production has undergone a progressive transformation. At the present time, more than 76% of the livestock is concentrated in industrial premises, totaling 289 farms that range, basically, from Region IV to IX. According to estimates derived from a census among pig producers, farms within these regions totaled 1.307.991 head.

TABLE N° 15
PIG LIVESTOCK IN DOMESTIC INDUSTRIAL FARMS, JUNE 1997

Region	Stock		Number of farms
	Heads	%	
Total	1.307.991	100,0	289
IV	966	0,1	8
V	75.202	5,7	44
R.M.	418.963	32,1	67
VI	517.410	39,6	57
VII	103.275	7,9	28
VIII	162.824	12,4	24
IX	29.351	2,2	61

Source: National Institute for Statistics (INE) (Pig farms census).

FAMILY PIG PRODUCTION (BACKYARD)

Family pig breeding is an activity spread nationwide in rural sectors, and totals 408.890 head. The maximum share concentrates in the southern part of the country, in regions VIII, IX and X.

Table N°16
 FIG LIVESTOCK IN FAMILY FARMS (*). CHILE. 1997

Regions	Stock (thousands of heads)	Share (%)
I	5150	1.3
II	3104	0.8
III	2003	0.5
IV	3397	0.8
V	844	0.2
R.M.	2692	0.7
VI	2103	0.5
VII	25363	6.2
VIII	64756	15.8
IX	161582	39.5
X	130959	32.0
XI	4034	1.0
XII	2897	0.7
Total	408890	100.00

Source: (*)1997 census estimates, National Institute for Statistics (INE).

- What is the average number of animals on each type of operation? If possible, break out into size categories.

TABLE N° 17
 AVERAGE NUMBER OF ANIMALS IN INDUSTRIAL FACILITIES (1997)

Region	Existences	
	Total population	Average for facility
Total	1,307,991	4526
IV	966	121
V	75,202	1709
R.M.	418,963	6250
VI	317,410	4080
VII	103,275	3670
VIII	162,824	6750
IX	29,251	480

- Where are the major livestock marketing centers?

Between the Metropolitan Region and VI Region they concentrate more than 90% of the slaughtering of pigs. The drop in participation of the livestock fairs (6.9%) in the total commercialization indicates the prevalence of the direct transaction of the pig livestock and the expression of vertical productive integration of the item.

TABLE N° 18
AUCTIONS OF PIGS IN FAIRS, ACCORDING TO YEAR

year	1992	1993	1994	1995	1996	1997	1998
N° of heads	343.709	363.288	329.819	288.488	260.581	199.817	193.97

Source: Statistical ODEPA

DOMESTIC PIG MARKET

Modern production conditions at industrial premises, together with the implementation of high technology, have made possible, during 1998, the slaughtering of 2.839.274 head. This has contributed, among other achievements, to the generation of exportable surplus.

TABLE N° 19
PIG SLAUGHTERING AND PORK PRODUCTION, CHILE 1992 - 1998

Year	Slaughtering (head)	Annual variation (%)	Pork (Ton.)	Annual variation (%)
1992	1,754,811	3.2	137,571	6.8
1993	1,844,589	5.1	147,282	7.1
1994	1,992,533	8.0	160,814	9.2
1995	2,196,089	10.2	172,410	7.2
1996	2,330,501	6.1	184,698	7.1
1997	2,577,344	10.6	208,703	13.0
1998	2,839,274	10.2	235,014	12.6

Source: National Institute for Statistics (INE).

Apparent Pork consumption

With regard to unitary apparent pork consumption, the year 1998 exhibited the highest historical figure of 14.8 kg, which means that the per capita consumption has doubled in the last decade.

TABLE N° 20
APPARENT PER CAPITA PORK CONSUMPTION

Year	Consumption (Kg per capita)	Annual variation (%)
1992	9.7	7.7
1993	10.4	7.2
1994	11.2	7.7
1995	12.1	8.0
1996	12.7	5.0
1997	13.5	6.3
1998	14.8	9.6

Source: National Institute for Statistics (INE).

Foreign trade of pig sector

Regarding the foreign trade of pork, we can affirm that our imports are of little significance, and they totaled, in 1998, 1215 tons and US\$ 1.8 million.

On the other hand exports, primarily to Argentina (46.1%) and Japan (29.3%), are of the highest importance regarding volume during 1998 nevertheless the returns, expressed as FOB values, place Japan in first place with 52.7% (US\$ 20.1) followed by Argentina with 30.9% (US\$ 11.8). National forecasts of pork shipments have been boosted by the declaration of Chile as a country free from CLASSICAL SWINE FEVER, which will facilitate a higher presence in other marketplaces.

TABLE N° 21
PORK IMPORTS AND EXPORTS, CHILE, 1992-1998

Year	Imports		Exports	
	Volume (ton)	Value (thsnds US\$ FOB)	Volume (ton)	Value (thsnds US\$ FOB)
1992	6,055	9,520	110	145
1993	3,360	6,912	290	637
1994	4,113	10,312	111	596
1995	2,159	5,809	1,025	1,387
1996	2,425	5,516	1,173	1,412
1997	12,093	24,592	1,048	1,559
1998	17,506	38,179	1,215	1,827

Source: National Institute for Statistics (INE).

• *What are the patterns of livestock movement within the region?*

The vertical integration of pork determines that most of the commercialization is direct from facility to slaughterhouse, being of low occurrences the commercialization through it finishes off in livestock fairs. The biggest volume of benefit is in the regions VI and R.M., coinciding with the biggest populations of pigs housed in industrial facilities.

• *How are the animals transported and handled during market transactions?*

The transport of pig livestock is carried out in general in trucks with a design specially for this end, such a condition gathers it the main companies dedicated to the item that have an integrated handling of its production dedicated it to its own slaughterhouses and processing plants of pig meat apart from this. A not very significant percentage of the transactions are carried out at livestock fairs, those that are transported in vehicles conditioned for the livestock transport, not existing in particular a normative one for the pig livestock.

9. Disease surveillance.

• *What types of surveys are conducted (such as serum surveys or others)?*

A serological research of diagnoses was made in samples detailed in the point N°4. - There also exists epidemic surveillance at places of risk and attention of accusations of the suspicion of disease. For this situation, CSF is considered as exotic disease.

- **For each survey conducted:**

a) Describe populations of animals sampled. Are they backyard operations? Are they operations that produce product for commercial sale? If so, do they have the potential for selling into export market channels? Also, indicate type of operation, such as:

- (1) Specialized breeder of genetically defined breeding stock**
- (2) Multiplier type of breeding operation, not including those described in (1)**
- (3) Fattening or finished operation.**
- (4) Artificial insemination center.**
- (5) Other point of concentration such as a slaughterhouse, market, or sale barn.**

Samplings for routine serologist survey exist on the industrial hatcheries dedicated to the export of pig genetic material, besides samplings in the other operation type (it puts on weight, reproductive, places of risk), as well as in backyard operations.

b) Are the surveys targeted to specific populations based on (signs or sick and/or dead animals, vaccination status of animals sampled, animals in higher areas, etc)?

The defined places of risk are the following ones:

- Facilities that import pig genetic material.
- Facilities near to border controls (marine and terrestrial ports, airports)
- Facilities near to landfills and places of disposal of garbage.

c) For each population: how frequent are the surveys? Describe the sampling methodology used (population size, sample size, how sample size is determined, how sample is select)? How many herds or flocks are surveyed? How many animals or birds are surveyed per herd or flock?

According to the population the inspection frequency can be for each import, or they can respond to annual survey on the populations objective that are defined.

The habitual thing is that the statistical design considers a critical prevalence of 1%, with a reliable estimate of 95%, the sample size is adjusted the population of the facility, the animals are chosen aleatory by means of standard methodology, according to population objective (reproductive, pigs in fattening, etc.) and the disease objective of the survey.

d) What diagnostic procedures and techniques are routinely followed including the required procedures for specimen collection?

The detail with the results of the samplings carried out to the date is detailed in the point N°4 of this questionnaire.

e) *What other information do you have about the sampling protocols used?*

The used sampling protocols are standard for the activity, setting down the origin and reason of the sampling carried out.

There also exists a surveillance entrance post of reproductive material entered to the country.

• *Is reporting of sick animals mandatory, and if so*

The disease is of obligatory accusation

a) *What penalties are involved for failure to report?*

The Law of Animal Sanitation DFL RRA N°16 1963, points out in its articles 6° and 7° that the owner or possessor of animals attacked by contagious diseases or that they offer suspicions of he being, they will denounce them immediately to the Agricultural and Livestock Service, same obligation it concerns the veterinary doctors and agricultural engineers of the Ministry of Agriculture, the veterinary doctors that act in the liberal exercise of the profession, and to the veterinary doctors of public services and municipal inspectors of slaughterhouses, and in general to all the bosses of public services in that livestock of any species is used.

b) *What penalties are involved for failure to report?*

With regard to the hardships and their application, the article 13° of this Law of Animal Sanitation establishes the tickets that will suffer the owners or possessors of animals that infringe this Law.

• *Are laboratory test run on suspicious animals cases are evaluated using each of the specific laboratory procedures)?*

TABLE N° 22
RECORDS OF CLASSICAL SWINE FEVER SUSPECTS ATTENTION, 1997-98 TERNL CHILE

Region	Type of operation	Type of sample	Presumed diagnostic	Final diagnostic
I	Family	Organ tissue	CLASSICAL SWINE FEVER	Negative
III	Family	Blood	CLASSICAL SWINE FEVER	Negative
VI	Industrial	Piglet	CLASSICAL SWINE FEVER	Negative
VIII	Family	Organ tissue	CLASSICAL SWINE FEVER	Negative
R.M.	Industrial abattoir	Organ tissue	CLASSICAL SWINE FEVER	Negative
R.M.	Industrial abattoir	Organ tissue	CLASSICAL SWINE FEVER	Negative

Source: Denunciation Attention Records, SAJ

• *Are quarantines imposed on premises with suspicious cases, pending final diagnosis?*

Yes, any case of suspicious of disease, the facility is imposed quarantine pre diagnostic until their definitive diagnosis

- *What other procedures are followed regarding suspicious cases?*
- Epidemic investigation that includes rakes from revenues and expenditures of animals, products and by-products of animal origin to the property, among other antecedents.
- Inspection of facilities and neighboring properties which is under suspicion.
- Quarantine pre diagnostic of the property with prohibition of exit of animals and products of the facility.
- Clinical inspection of the animals, with samples for diagnosis of laboratory.
- *What is the number of clinical submissions processed by the laboratory each year to rule out the disease agent in the requesting region?*

The detail of the volumes of samples obtained and processed by the central laboratory is detailed in the point N°4.

10. Diagnostic laboratory capability.

- *Were and how many laboratories are authorized to diagnose the disease agent?*

Official Diagnostic Laboratory of Agricultural and Livestock Service " Complex Lo Aguirre".
Route 68, Km 22, Santiago. Phone 56(2) 6010 445

- a) *What are their diagnostic capabilities (What test can each perform to detect the disease agent of concern)?*

50 samples for technical IFD by day
300 samples for technical ELISA / day
48 samples for technical S.N. / week

- b) *Are any of these laboratories approved to isolate the disease agent and/or identify the disease agent)?*

Only the Official Laboratory is enabled and authorized for the agent's isolation in the country.

- c) *If not, where specifically is such isolation, does identification and typing donate?*

It doesn't correspond to the situation country.

- *What security measures are in place in laboratories within the region to prevent escape of biological agents?*

Laboratory of maximum security, with excluder system, clothes of exclusive use for this laboratory, sterile material, filtration of air (negative pressure), sterilized of the entire material used and all the waste, sterilization clothes used in this enclosure.

- *What kind of training have the diagnostic personnel had regarding the specific disease agents of concern?*

Personnel with training of 3 weeks in CISA-INIA-Valdeolmos (Spain), technical of diagnoses for CSF and PPA, IFD, SN, PCR, IPMA, ELISA.

Participation in the VII International Course of Exotic Diseases, October 1998, INIA-Valdeolmos (Spain).

Participation in the Seminary "Applications of the biotechnology to the diagnosis and eradication of diseases in animals", Santa Cruz, Bolivia, April 19-23 1999.

11. Emergency response capability.

- *What policies and infrastructure exist for emergency response to outbreak situations?*

Chile is free of the entirety of the diseases of the List A of the International Office of Epizootic (OIE), three of those which were eradicated from its territory (New Castle - 1975; Fever Aftosa -1981; and Classic Swine Fever - 1998), and of important diseases of List B of OIE (Aujeszky disease, BSE, Scrapie). Also, the cattle sector exports a total of US \$160 millions to near 40 countries. It has been quantified of a high negative impact the presentation of some exotic pathology in the territory. In view of the signal scenario the Ministry of Agriculture of Chile has given priority to the implementation through the SAG, of a system of emergency animal sanitation as a form to protect and to consolidate the patrimony zosanitario of the country and to assure the permanency and competitiveness of the agricultural products in the international markets.

The general characteristics of the emergency system are pointed as: One functional and organic main plan of the emergency system there is been elaborated, and the specific contingency plan are designed for the fight against the exotic diseases that present to bigger introduction risk. The established requirements as goals objective for the implementation of the emergency system are capacities of prediction of events emergencies events; of precocious detection, of quick intervention, of effective control of the problem; and intervention at minimum cost.

It was defined that the organization emergencial should have a permanent structure in time, and appropriate to the different periods or phases of the risk of presentation of situations emergencies situations, those that were defined as phases: of normality, of alert and of emergency. Each phase has an organization and specific operation, and it is organized in hierarchical levels: political strategic, tactical and operative level, according to type of responsibilities. The emergency structure designed is integrated in the organic outline of the Service and in it participates the whole structure of existent animal sanitation, together with all the support units that it counts the Ministry. The system has a previously trained special group of quick intervention (emergency group) that will be in charge of key positions and missions of an emergency campaign.

The system has national covering and its main action lines are: it structures and organization, selection, training and the personnel's training, formulation of contingency plans, simulation exercises, plan of attention of accusation of suspicion of diseases, plan of supply of materials and teams, and system of information. The activities in the phase of sanitary normality are carried out according to program and annual budget. The activities of the phases of sanitary alert and emergency is developed according to the contingency plans

and it stops its financing it is appealed to extraordinary focus gets contributed by the Ministry. The emergency system involves so much to public entities, like to organization's of producers, cattle industry and doctor's veterinary and other professionals of agriculture.

- Give your best estimates (minimum, most likely, and maximum) and the evidence and reasoning that support your estimates) for the following:

a) *What is the expected time (days) to detect the presence of the pest or disease agent of concern - starts when a first non-imported animal or bird is infected and ends when and an infected non-imported animal or birds is detected?*

From the first detected symptoms the smallest possible time to detect the agent's presence is of 3 days, the most probable being 5 days and 7 days maximum.

b) *What is the expected time (days) to stop export starts with the first detection of an infected non-imported animal or bird and ends when control of exports is considered effective?*

Inside the 24 Hrs. of having confirmed the presence of CSF exports are suspended, communicating this situation to the OIE, bordering countries and countries with commercial agreements.

c) *During the time of export exposure (starts when a first non-imported animal or bird is infected and ends when control of exports are considered effective), what is the expected rate of spread of disease (herds or flocks per week) initiated by the first infected non-imported animal or bird?*

Week	Affected herds
0	1
1	3
2	5
3	2
4	0

The outlined scenario is of appearance in small family forks of pigs (behind the patio), fed with waste, with more risk in the I and II regions.

The hypothesis is that it would not affect industrial facilities, since for the conditions of bio security, exports are not exposed. On the other hand the existence of an insurance taken by the private sector, the application of the sanitary rifle (Stamping out), the existence of a bank of vaccine and the system of Facilities Animal Low Official Control (PABCO), they determine that the risk of being presented in this productive stratum makes it be of minimum probability