



**REPORT OF THE *EX OFFICIO* SECRETARIAT FOR THE
48th MEETING OF THE SOUTH AMERICAN COMMISSION FOR
THE FIGHT AGAINST FOOT-AND-MOUTH DISEASE (COSALFA)**

Virtual Session

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REPORT OF THE *EX OFFICIO* SECRETARIAT FOR THE 48th MEETING OF THE SOUTH AMERICAN COMMISSION FOR THE FIGHT AGAINST FOOT-AND-MOUTH DISEASE (COSALFA)

(Working Document)

INTRODUCTION

The Report of the *ex officio* Secretariat is submitted for consideration of the delegates of the countries to the COSALFA 48, as a working document for the analysis and discussion of the advances in the eradication of foot-and-mouth disease observed in the June 2020-June 2021 period.

This report includes a synthesis of the status of the actions taken for the eradication and prevention of Foot-and-Mouth Disease (FMD) in South American countries and in Panama, as well as an evaluation of the level of compliance by the countries and the Pan American Center for Foot-and-Mouth Disease (PANAFTOSA-PAHO/WHO) of the resolutions adopted in the 47th COSALFA. Additionally, an account is given of the general technical cooperation activities, including the results of agreements and projects, as well as the interinstitutional and collaborative efforts with other cooperation agencies made by PANAFTOSA-PAHO/WHO in support of the countries.

The situation of the foot-and-mouth disease in the region is based both on the country reports sent to PANAFTOSA-PAHO/WHO and the information gathered by the Center in cooperation activities offered to the countries, supplemented by the analysis of the relevant information published in different media.

The level of compliance of the Resolutions is based on the information gathered by the *ex officio* Secretariat within the framework of the commitments to the Hemispheric Program for the Eradication of Foot-and-Mouth Disease (PHEFA), which can be supplemented by inputs from the Delegates.

I. SITUATION OF FOOT-AND-MOUTH DISEASE IN SOUTH AMERICA AND PANAMA

Throughout 2020, the strategy for the withdrawal of the vaccine progressed significantly in the Region due to Brazil's impact. This scenario became consolidated after the recognition, at the World Assembly of OIE Delegates (in May 2021), of new free areas without vaccination such as the state of Paraná, the area formed by the states of Acre and Rondônia and municipalities of the states of Amazonas and Mato Grosso, and the state of Rio Grande do Sul. Some of these areas, such as the state of Paraná, have been without vaccination for more than two years (the last vaccination was in May 2019), and during this period of time, with this immunity gap, they contribute to restate the eradication of the disease. The total number of bovines in these areas is 40 million, resulting in a considerable change in the percentage of disease-free bovines in the Region. Hence, the foot-and-mouth disease situation in the Region in 2020 consecutively showed its best historical record in relation to the areas recognized as free by the OIE, with 81% of bovines recognized as free with vaccination and 15% as free without vaccination, while the previous figure was 5%.

More modestly in terms of the number of animals, but strategically relevant regarding the control of foot-and-mouth disease, Colombia is recognized by the OIE as free with vaccination in the protection zone in the border with Venezuela, known as a high surveillance zone, located along a strip of approximately 15 kilometers wide including the municipalities of the departments of Arauca, Vichada and Boyacá. This fact underscores the acknowledgement of Colombia's efforts for the control of the 2017 and 2018 outbreaks and the improvement of the foot-and-mouth disease prevention strategy in the border line. Thus, the risk situation observed two years ago in the north of the Andean sub-region appears more relieved in the Colombian side. Besides, the country continues with the zoning strategy that separates most of the country from Venezuela, through a large area comprising several departments that form the north border, the protection zone of the North of Santander and the eastern border. This zoning strategy, and its corresponding control points, contributes to the prevention and protection of the status both of the country and also of the rest of the Andean corridor.

The spotlight regarding the risk of foot-and-mouth disease in the Region remains in Venezuela, which continues without OIE's official recognition and with important deficits in vaccine coverage and surveillance. However, the veterinary authorities keep their commitment toward disease eradication, also with the strategic support of the private livestock sector. PANAFTOSA/PAHO has continued supporting the country, with particular assistance for the creation of the FUNVESSA (*Fundación Venezolana de Servicios de Salud Animal*) [Venezuelan Foundation of Animal Health Services], a public-private initiative created with the primary objective of contributing to improve herd immunity against foot-and-mouth disease. The South American region has been an example that shows the importance of public-private collaboration for the success of foot-and-mouth disease eradication; therefore, the consolidation of the FUNVESSA is a significant opportunity for disease eradication in Venezuela. Even though it is still incipient, FUNVESSA's role was demonstrated in the implementation of the pilot project for the 2021 first vaccination cycle campaign in the state of Bolívar.

Although the advances in the rest of the Region are not stunning, we must highlight the importance of maintaining the free status, as the occurrence of the last foot-and-mouth disease outbreaks is more and more distant, being clear that the internal risk of virus presence was left behind, as shown by the situation report (i.e., 9 years since the occurrence of serotype O, 17 years

since C and 19 years since serotype A). Besides, almost all the countries have started to work behind the scenes in the strategy for the withdrawal of the vaccine, since the technical consolidation and discussions with different players requires some time.

MAP 1: Health situation of the countries by May 2021, according to recognition after the World Assembly of OIE Delegates 2021. <https://www.oie.int/en/event/88th-general-session-of-the-world-assembly-of-oie-delegates/>



Currently, 95.1% of the Region's area is considered foot-and-mouth disease-free – 66.4% with vaccination and 33.4% without vaccination. Therefore, 98.8 % of cattle herds and 95.9% of total cattle are considered FMD-free. See Table 1.

TABLE 1: Health situation of Foot-and-Mouth Disease in South America in June 2021

HEALTH SITUATION (OIE Recognition)	AREA		BOVINE/BUFFALINE POPULATION		TOTAL BOVINE/ BUFFALINE POPULATION	
	Km ²	%	Number	%	Number	%
Free WITHOUT Vaccination	5,941,569	31,7	1,883,105	35,3	55,867,557	15,2
Free WITH Vaccination	11,899,119	63,4	3,393,444	63,5	296,950,864	80,7
NOT Free	916,324	4,9	64,116	1,2	15,134,590	4,1
TOTAL	18,757,012	100	5,340,665	100	367,953,011	100

Regarding passive surveillance, the situation report maps illustrate the capillarity and the connection level between what happens at the farm and the official veterinary services, as shown by the attention given to suspected vesicular disease, the notifications of vesicular stomatitis and other differential diseases. These maps also display certain heterogeneities that are difficult to understand directly as potential inequalities in passive surveillance, since the distribution of susceptible animals is not uniform nor the occurrence of different conditions, or the system and the criteria for recording founded suspected diseases, etc., and therefore, the differences observed in the reporting of suspected diseases may be just a direct reflection of occurrence or otherwise indicate, in fact, differences in surveillance.

Concerning active surveillance, as illustrated by the situation report of the programs in 2020, through their annual serological sampling activities, the countries contribute to rule out the presence of viral transmission, along with other supplementary surveillance strategies (e.g., recognitions during mobilization of animals, ante and post-mortem inspections at slaughterhouses and in fairs and centers with concentration of animals, routine farm visits, etc.) presented in the surveillance sections of country reports. Likewise, most countries with vaccination conduct regular immunity tests and get results according to PANAFTOSA-PAHO/WHO recommendations.

In addition, the efforts of the countries to strengthen the strategies for the prevention and response to emergency situations are clear, particularly through training and updating of contingency plans (refer to the training and contingency plans section in the Situation Report of the Programs for the Eradication of Foot-and-Mouth Disease in South America and Panama, 2020, which will be submitted as a working document at the COSALFA 48).

II. LEVEL OF COMPLIANCE OF THE RESOLUTIONS OF THE 47th COSALFA

RESOLUTION I – PROGRAM FOR THE ERADICATION OF FOOT-AND-MOUTH DISEASE IN VENEZUELA

IT IS RESOLVED:

1. To request PANAFTOSA-PAHO/WHO to continue providing the necessary technical cooperation to Venezuela for the follow-up and conduction of the national strategy for the 2021-2025 period agreed with the INSAI and presented at COSALFA 47.
2. To urge the Venezuelan authorities to subscribe to the framework agreement between the National Institute of Integral Agricultural Health (*Instituto Nacional de Sanidad Integral Agropecuaria* – INSAI) and the Venezuelan Foundation of Animal Health Services (*Fundación Venezolana de Sanidad Animal* – FUNVESSA) for implementation and operation as of 2021.
3. To request PANAFTOSA-PAHO/WHO to provide cooperation to the INSAI to project the zoning strategy proposed by the states bordering Brazil to the states bordering Colombia using the cooperation between Brazil, Venezuela and PANAFTOSA as a model.
4. That PANAFTOSA-PAHO/WHO includes in the technical cooperation works an exploration of epidemiological indicators regarding the situation of the foot-and-mouth disease program in the bordering states so that they can be shared by neighboring counterparts.
5. To urge the INSAI to evaluate, supported by PANAFTOSA-PAHO/WHO, the possibility of conducting a study of viral transmission particularly focused on detecting the presence of viral transmission in the states bordering Colombia.
6. To urge COSALFA countries, particularly the private sector, to support the activities of the FUNVESSA under PANAFTOSA-PAHO/WHO coordination.

LEVEL OF COMPLIANCE

PANAFTOSA-PAHO/WHO continued providing technical cooperation remotely, both to the public and the private sectors of Venezuela, promoting and participating in meetings throughout the period. Regarding the framework agreement between the INSAI and the FUNVESSA, INSAI's Animal Health Director issued an internal memorandum of acknowledgment on the FUNVESSA as the enforcement arm of health policies in the country.

PANAFTOSA/PAHO, jointly with the INSAI and the FUNVESSA, elaborated a strategy and a pilot plan for the first vaccination cycle of 2021 considering the zoning involving the state of Bolívar, Amazonas and part of Delta Amacuro. Within the period, bilateral meetings were promoted with the private sectors of Venezuela and Brazil in order to explore the possibilities of providing technical and financial support to conduct the vaccination cycles in the Venezuelan states of Amazonas and Bolívar.

Due to the current COVID-19 pandemic health restrictions, no actions were carried out for the elaboration of epidemiological indicators and viral transmission studies.

Resolution partially accomplished

RESOLUTION II – TRANSITION TOWARD THE STATUS OF FREE FROM FOOT-AND-MOUTH DISEASE WITHOUT VACCINATION

IT IS RESOLVED:

1. To urge the Authorities of Official Veterinary Services of COSALFA countries, coordinated by PANAFTOSA-PAHO/WHO, to enable mechanisms to deepen the exchange of technical, scientific and regulatory knowledge concerning the planning of the transition toward the status of free without vaccination, facilitating information dissemination among Veterinary Services.

LEVEL OF COMPLIANCE

Due to the COVID-19 pandemic health restrictions, exchange actions between FMD-free countries that are advancing in the transition toward the status of free from foot-and-mouth disease could not be implemented. PANAFTOSA-PAHO/WHO included a Session in the 2021 Pre COSALFA 48 Seminar, entitled Decisions and Experiences in the Transition toward the Status of Free without Vaccination, in which representatives of the public and private sectors presented the experience and vision of Brazil. Besides, there was a round of interviews with representatives of the official sector of six South American countries inquiring about the elements involved in decision making for a change of status, whose results were presented in the Pre COSALFA 48 Seminar.

Resolution partially accomplished

RESOLUTION III – PUBLICATION OF THE FOOT-AND-MOUTH DISEASE DIAGNOSIS RECORDS SINCE 1952

IT IS RESOLVED:

1. To request PANAFTOSA-PAHO/WHO to publish in digital format the data from the record book of samples processed in its FAO/OIE Diagnostic and Reference Laboratory for foot-and-mouth disease since 1952.

LEVEL OF COMPLIANCE

PANAFTOSA-PAHO/WHO reviewed the data before publication in digital format and observed that some results derived from the analyses conducted involve samples of different nature and origin, samples of scientific interest and concerning vaccine production, and samples not exclusively related to foot-and-mouth disease outbreaks. With this observation, work is being done to continue with the digital publication schedule.

It should be said that these records are under the responsibility of PANAFTOSA/PAHO's LREF for any consultation of historical interest or otherwise, regardless of its digital publication.

Resolution partially accomplished

RESOLUTION IV – BIENNIAL PLAN 2020 – 2021 OF THE PHEFA

IT IS RESOLVED:

1. To approve the Biennial Plan 2020 – 2021 of PANAFTOSA Technical Cooperation to the PHEFA.
2. That the public and private sectors represented at the COSALFA commit to manage and provide the necessary resources agreed upon in the Biennial Plan budget, in order to comply with the technical cooperation and follow-up actions of the PHEFA.
3. That PANAFTOSA must provide guidance to the countries on specific mechanisms (Trust Fund, Agreements, Conventions and Terms of Technical Cooperation) that will enable PAHO/WHO to receive resources from the member countries to comply with the technical cooperation actions within the framework of the PHEFA.

LEVEL OF COMPLIANCE

PANAFTOSA-PAHO/WHO elaborated the Biennial Operational Plan 2020-2021, its schedule with budget, and continues disseminating the different resource mobilization instruments, together with member countries, to comply with the technical cooperation actions within the framework of the PHEFA.

Likewise, it continued with the elaboration of the 5th Term of Adjustment of the Memorandum of Understanding between the *Fundación de Servicios de Salud Animal* [Animal Health Services Foundation] (FUNDASSA) of Paraguay and PAHO/WHO, establishing its contribution to the PHEFA Trust Fund for financing PANAFTOSA-PAHO Technical Cooperation to the PHEFA during the 2020-2021 two-year period.

The Biennial Plan 2020-2021 to strengthen PANAFTOSA's technical cooperation for the consolidation of the Hemispheric Program for the Eradication of Foot-and-Mouth Disease (PHEFA) is registered in the IRIS collection. Access link: <https://iris.paho.org/handle/10665.2/52932>

Resolution accomplished

III. OTHER FOOT-AND-MOUTH DISEASE COOPERATION ACTIVITIES

1. Report of the 3rd Extraordinary Meeting of the COHEFA

The 3rd Extraordinary Meeting of the Hemispheric Program for the Eradication of Foot-and-Mouth Disease (COHEFA) was held virtually on 15 December, 2020, aimed at approving the new Action Plan 2021-2025 of the Hemispheric Program for the Eradication of Foot-and-Mouth Disease (PHEFA).

The committee approved the Action Plan 2021-2025 of the PHEFA, through Recommendation I.

2. Technical cooperation with Brazil

PANAFTOSA-PAHO/WHO continues providing technical cooperation to Brazil, within the framework of the Strategic Plan 2017-2026 of the National Program for the Eradication and Prevention of Foot-and-Mouth Disease (PNEFA) of the Ministry of Agriculture, Livestock and Food Supply (MAPA), participating in virtual meetings and training events, as well as in the Working Groups.

Within the period, PANAFTOSA-PAHO/WHO participated virtually in the following training events:

- “Simulation Exercise of Health Emergency - Santa Catarina”, aimed at training professionals of the Official Veterinary Service. PANAFTOSA participated with the topics “Epidemiological situation of foot-and-mouth disease in the world” and “Vesicular Diseases”.
- Course “Foot-and-mouth disease: Surveillance and procedures in the research of vesicular diseases”, offered by the MAPA to the OVSs of Brazil and the countries of the region. PANAFTOSA/PAHO participated as coach and also helped with the translation of all the material of the course into Spanish.
- “Talking about Foot-and-Mouth Disease: From diagnosis to notification”, promoted by the Animal Health Defense of the state of Pará.

In May 2021, PANAFTOSA-PAHO/WHO participated in the Live Session entitled “Foot-and-Mouth Disease: New Achievements and Challenges” hosted by the SUASA channel of the MAPA with the participation of the Head of the Foot-and-Mouth Disease Division.

Also, at the request of the Animal Health Department, PANAFTOSA PAHO/WHO is providing technical cooperation with the MAPA in an exercise leading to the definition and prioritization of antigens to be included as strategic reserve in an antigen and vaccine bank. PANAFTOSA PAHO/WHO, in coordination with experts from the European Commission for Foot-and-Mouth Disease and the Foot-and-Mouth Disease Reference Laboratory at Pirbright made a review of the most appropriate approach to integrate the Pragmatist tool in the selection of priority strains to be kept in a future antigen reserve bank for foot-and-mouth disease emergencies in the region.

Likewise, PANAFTOSA-PAHO/WHO collaborated with the review of the epidemiological survey on biosecurity and foot-and-mouth disease, elaborated by the MAPA to be applied in the OVSs of the states of Brazil.

3. Technical cooperation with Colombia

PANAFTOSA-PAHO/WHO has continued providing technical cooperation to the ICA in the rezoning process of the country, after Colombia recovered the status of free with vaccination. This cooperation was provided in the field of seroepidemiological studies for the detection of viral transmission and the estimation of the immune level of the bovine population, and also to support the differential vaccination strategy and the review of the files in order to be certified as free from foot-and-mouth disease.

In addition, the International Cooperation Framework Agreement between the *Instituto Colombiano Agropecuario* [Colombian Agricultural Institute] (ICA) and PAHO/WHO was signed in May 2021 for institutional strengthening in the areas of foot-and-mouth disease, zoonosis and food safety.

4. Technical cooperation with Venezuela

In spite of the restrictions imposed by the COVID 19, in 2020 PANAFTOSA-PAHO/WHO made the follow-up of the technical cooperation to Venezuela through regular virtual meetings with the INSAI and FUNVESSA in order to discuss and define topics such as the political articulation for the recognition of the legal status of the FUNVESSA by the relevant country authorities and its subsequent recognition, by the INSAI, as the enforcement arm in charge of the execution of the vaccination cycles in the country under the supervision of the health authority of Venezuela.

Regarding the legal constitution of the FUNVESSA, it was recognized in the relevant public body as a non-profit foundation. Through an internal memorandum signed by its Director of Animal Health, the INSAI recognized the FUNVESSA as the enforcement arm of its health policies in the entire country. In this sense, work is ongoing to achieve the signing of the action framework agreement between the INSAI and the FUNVESSA by the ministry of Popular Power for Agriculture and Land and the technical cooperation agreement between PAHO, through PANAFTOSA, and the Bolivarian Republic of Venezuela.

Moreover, it is worth mentioning that PANAFTOSA-PAHO/WHO coordinated several meetings with the INSAI and the private sector that resulted in the technical development of an action plan for the eradication of foot-and-mouth disease by 2025 along with a zoning strategy.

5. Technical cooperation with Ecuador

PANAFTOSA-PAHO/WHO continued working in the cooperation actions within the framework of the Technical Cooperation Agreement with Agrocalidad for review, guidance and the provision of diagnostic kits/sets used in activities related to the National Program for the Eradication of Foot-and-Mouth Disease, in support to surveillance and immunity and viral circulation studies for foot-and-mouth disease.

In this period, PAHO and AGROCALIDAD signed the 6th Amendment of the Agreement with the provision of new resources amounting to USD 99,471.06. Also, the elaboration of the 7th Amendment was requested in 2021 to provide an additional USD 117,200.00 for PANAFTOSA's technical cooperation.

6. Technical cooperation with Paraguay

It was arranged with the private sector that the *Fundación de Servicios de Salud Animal* [Animal Health Services Foundation] (FUNDASSA) of Paraguay would continue contributing to the Trust Fund of the PHEFA, to fund the Technical Cooperation provided by PANAFTOSA-PAHO/WHO to the countries. The 5th Term of

Adjustment of the Memorandum of Understanding is under elaboration to keep the participation commitment between the FUNDASSA and PAHO to the PHEFA.

Together with the SENACSA, PANAFTOSA/PAHO made the proceedings to sign the Articles of Agreement for the establishment of the foot-and-mouth disease regional antigen bank (BANVACO), which requires the participation of three countries to start acting as a regional project. On 23 July, 2021, PAHO director and the president of the SENACSA signed the Articles of Agreement for the establishment of the BANVACO.

7. Permanent Veterinary Committee (PVC)

PANAFTOSA-PAHO/WHO provided technical cooperation to the PVC for different activities, particularly for the elaboration, jointly with the foot-and-mouth disease ad-hoc group of the PVC, of a project to strengthen active and passive surveillance, the control of borders and rapid response for emergency situations, in order to ensure the continuity to the PVC-BID project, ended in 2019. This activity is the result of resolution RES/CVP/PY/V/2/2020, signed by six member countries of the PVC, on 3 February, 2021.

Besides, PANAFTOSA/PAHO participated in several meetings and initiatives promoted by the PVC throughout the period, such as the introduction to professionals of the Official Veterinary Services of the Southern Cone, of the new surveillance system IVVO (*Interfaz para Vigilancia Veterinaria Oficial*) [Interface for Official Veterinary Surveillance] and its regional use to share information on the surveillance of vesicular diseases.

8. Andean Community of Nations (CAN)

PANAFTOSA-PAHO/WHO collaborated with the Coordination of Terrestrial and Aquatic Animal Health and Veterinary Products of the CAN, in the drafting and review of a cooperation project for surveillance and early detection of the foot-and-mouth disease virus in the Andean Sub-region and the strengthening of strategies for early response and improved performance during emergency situations.

9. International Regional Organization for Plant and Animal Health (OIRSA)

PANAFTOSA-PAHO/WHO and OIRSA held a virtual meeting in November 2020 with the directors of Animal Health in order to present the new action plan 2021-2025 of the PHEFA which was later submitted to and approved by the Hemispheric Committee for the Eradication of Foot-and-Mouth Disease (COHEFA), in December 2020.

10. World Organization for Animal Health (OIE)

The cooperation between PANAFTOSA-PAHO/WHO and the OIE continues effective. Experts participated in virtual meeting of the *ad hoc* Group of foot-and-mouth disease status of the OIE, and in different consultations made in this Group during the year, as well as in the 88th General Assembly of Delegates held in May 2021.

PANAFTOSA/OPAS-WHO participated actively in the activities of the OIE/FAO Network of Reference Laboratories for foot-and-mouth disease and collaborated in the review and update of the chapters about foot-and-mouth disease and vesicular stomatitis of the OIE Terrestrial Manual.

11. PANAFTOSA-PAHO/WHO laboratories

a) OIE/FAO Reference Laboratory for the diagnosis of foot-and-mouth disease and vesicular stomatitis - LREF/PANAFTOSA-PAHO

During the June 2020 - June 2021 period, the LREF/PANAFTOSA-PAHO continued strengthening the activities of regional and international harmonization of diagnostic proceeding, validation of methodologies and implementation of quality management systems.

The Laboratory responded to all the requests for reference materials (RM) for monitoring, implementation, validation and confirmation of diagnostic tests for foot-and-mouth disease and differential diseases, promoting the distribution of positive and negative control sera, viral seeds, cell lines, and positive controls for molecular biology.

The training program was maintained virtually for professionals of Ecuador, Uruguay, Guyana and Brazil, responding to the needs of training in diagnostic methods for the epidemiological surveillance of foot-and-mouth disease, vesicular stomatitis and differential diagnosis.

In this period, the laboratory coordinated the Network of Reference Laboratories in diagnosis and control of vaccines of South America, with a special focus on the diagnosis of vesicular and confounding diseases and the control of the foot-and-mouth disease vaccine, promoting a participative approach and fostering information exchange.

Also, the Proficiency Test Program was carried out for the control of foot-and-mouth disease vaccines and the detection/typification of the foot-and-mouth disease and vesicular stomatitis virus, with the participation of 17 laboratories of 12 countries of the region of the Americas.

Similarly, extra-regional experiences on the topic of vaccine control were shared with professionals of laboratories of Iran, Morocco and Vietnam. Likewise, support was given to the National Defense Medical Service of Uganda in vaccine quality control, through in vitro tests, with the purpose of evaluating foot-and-mouth disease vaccine batches commercialized in that country.

With the support of the National Centre for Foreign Animal Disease (NCFAD) of Canada, the complete genome sequencing of the FMDV serotype O and A strains, isolated in South America and kept at PANAFTOSA, which were epidemiologically relevant in the 1950 – 2018 period, was performed.

The laboratory consolidated the position of international discussion forums promoted by FAO and OIE in the region, as well as the interactions with other international reference organisms, with its participation in the “15th Annual Meeting of the OIE / FAO Network of Reference Laboratories for Foot-and-Mouth Disease”, and the “Virtual workshop on the official recognition by the OIE of the status for animal diseases, focused on the maintenance, reconfirmation, suspension and recovery of the status for foot-and-mouth disease”.

The regional reference activities were accomplished, including the technical support for the validation of a new kit for the detection of FMDV non-capsid proteins (ELISA-3ABC) with the aim of analyzing multiple species, with the provision of biologicals and diagnostic kits, training, advice on technical consultations, dissemination of information and response to identified needs.

The annual reports about the activities of the LREF/PANAFTOSA are available on PANAFTOSA/PAHO website:

<https://www.paho.org/es/search/r?keys=informes+de+laboratorio+PANAFTOSA>

b) Production laboratory - LPRO/PANAFTOSA-PAHO

Regardless of the COVID-19 pandemic and the related public health restrictions, the PANAFTOSA/PAHO LPRO continued producing and sending reagents to the countries of the region and responding to other requests, in order to keep diagnostic activities, epidemiological studies and vaccine quality control within the scope of the foot-and-mouth disease programs in the countries (Table 2).

TABLE 2. N° of Kits/Sets delivered to the countries by the LPRO, June 2020 - June 2021

KITS/SETS	PSE-111 ELISA 3ABC	PSE-111 EITB	PSE-001 ELISA FMD gIII	PCV-004 CFL-FMD (O)	PCV-005 CFL-FMD (A)	PDP 003 TYPIFICATION
TOTAL	350	326	39	172	170	29

- ELISA 3ABC/EITB: 890 samples/kit ELISA 3ABC and 132 samples/kit EITB
- ELISA FMD gIII: 440 samples/Kit
- CFL-FMD (O) and (A): 192 samples/Set
- Typification: 175 samples /Set

Likewise, technical cooperation was given virtually to attend and respond to routine needs of laboratories and technical assistance was provided to the National Laboratory of the SENACSA and LAUDA SAP of Paraguay, and the LIDIVET of Bolivia.

During the period, PANAFTOSA/PAHO developed the Kit ELISA FMD gIII, a new diagnostic tool for the analysis of samples of other animal species susceptible to foot-and-mouth disease. The kit Elisa FMD gIII received collaboration from Brazil, Colombia, Canada and the United Kingdom in the validation process and is commercially available at PANAFTOSA. In addition to this tool, a new kit is being elaborated for Vesicular Stomatitis (VS), Indiana (Ind1 and Ind3) and New Jersey (NJ).

PANAFTOSA/PAHO provided the laboratories with a software called SISLAB – Laboratory Calculation System – which enables the automation of the process for obtaining results when the kits and sets are used. The system calculates the titration, the inhibition percentage (IP) and the positivity percentage (PP), as well as the expected protection percentage (EPP) for the foot-and-mouth disease vaccine. The tool is available for interested laboratories that use the kits and sets by contacting the LPRO of PANAFTOSA. For that end, a simple subscription is required to create a user name and password in order to have access to the software, which is also available on our internet webpage: <https://sislab.panaftosa.org.br>.