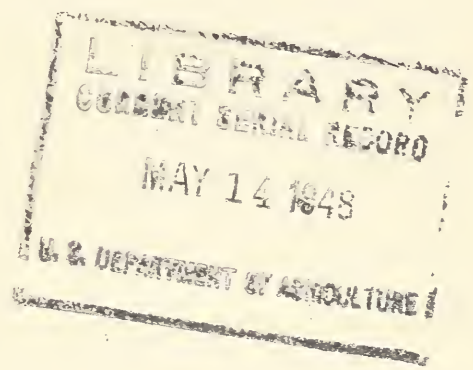


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United States Department of Agriculture
Agricultural Research Administration
Bureau of Animal Industry

March 18, 1948

REPORT ON DEVELOPMENTS
IN THE
CAMPAIGN AGAINST FOOT-AND-MOUTH
DISEASE IN MEXICO



NOTE: This report has been prepared on the basis of the best information obtainable at the time of compilation but is subject to later revision. The first report in this series was prepared January 28, 1947 and was followed by 11 supplements, the last of which appeared January 29, 1948. The series of supplements is now being discontinued but separate reports, similar to this one, on developments in the campaign will continue to be issued.

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Principal Recent Developments in Campaign

Following are significant developments in the campaign against foot-and-mouth disease in Mexico since issuance of the last report in this series:

- Recent commission decisions.
- Fence construction in northern buffer zone.
- Depth of zones aids protection of quarantine lines.
- Slaughter operations, though limited, continue.
- Adjustments in campaign personnel.
- Meat-packing operations in northern Mexico.
- More border-patrol personnel.
- The vaccine situation.
- Advances in foot-and-mouth disease research.

Recent Commission Decisions

At a meeting held in Washington, D. C. February 20-22, the Mexican-United States Commission for the Eradication of Foot-and-Mouth Disease reached conclusions on various measures designed to support and amplify the official program agreed upon at its previous meeting held December 8-10, 1947.

The decisions reached at the December meeting had been:

- (1) That a maximum effort be made by both countries to hold and strengthen the quarantine lines immediately north and southeast of the present infected areas; including zones formed by the lines described in Annex I*, in which all outbreaks would be immediately eradicated by slaughter and burial. All outbreaks north of the north quarantine line and east of the southeast quarantine line will be immediately eradicated likewise. The location of the quarantine lines and the depth of the protective clean zones may be modified as found necessary by the commission.

*Annex I contains a detailed geographical description of the quarantine and protective lines in Mexico. Copies of the description are available on request.

(2) That the field forces of the commission will be regrouped and concentrated immediately along the quarantine lines and the adjacent clean zones. These clean zones are to be extended and enlarged as rapidly as possible through strict quarantine, slaughter, and vaccination.

(3) That the commission recognizes that the success of the program depends upon the utmost cooperation of the Mexican National Army and that the Government of Mexico must increase and strengthen the active participation of Army units with all necessary equipment, as recommended by the commission.

(4) That appropriately designated agencies engage such technically qualified people, including economists, as may be necessary, for the purpose of carrying on research and study on the effect of the disease and its eventual eradication upon the economies of Mexico and the United States.

(5) That the commission undertake immediately to set up facilities for research and the preparation and testing of foot-and-mouth disease vaccines and for studies of the immunological characteristics of the disease as it exists in Mexico. The commission is in agreement that vaccines prepared in the laboratories of foreign countries should be tried out experimentally in Mexico with the results of these experiments being made the subject of reports and recommendations to the two Governments to determine the future scope of the use of vaccines in the campaign.

(6) That the commission will not pay indemnities for any animals that are not slaughtered and buried as directed by the commission.

(7) That the commission undertake the immediate survey and analysis of the factors entering into the holding of the quarantine lines, to determine, among other things, the practicability and extent and location of any fencing that might be necessary.

The principal conclusions reached at the commission's meeting February 20-22 were, in substance, as follows:

That vaccination, as a protective measure, be applied primarily to healthy animals within the northern and southern protective zones; other supplementary use, under the supervision of the Mexican Government, was also approved.

That a segment of the northern quarantine line, in the State of San Luis Potosi, be moved southward about March 1, 1948, if the last of a series of inspections continued to show the absence of infection in that area. With that change the protective zone paralleling the line was also to be moved southward a similar distance.

That facilities for testing vaccine be improved and enlarged and that the director and co-director of the commission must first approve any vaccine used.

That animals vaccinated must be properly identified by tags or brands.

That Mexican technicians administer the vaccine in the presence of representatives of the United States section of the commission.

That the vaccine used by the commission in its program be applied without charge to the owners of the animals.

That a thorough survey be made to determine the number of Mexican soldiers necessary for proper patrol of all segments of the quarantine lines and for providing other needed protective services, this survey to include estimates of vehicles and other equipment needed to provide adequate mobility and effectiveness of military personnel.

In addition, the conference dealt with finances and other business matters relating to the official program of operation agreed upon. As customary the decisions reached were to be submitted through diplomatic channels for ratification by both Governments.

Fence Construction in Northern Buffer Zone

To determine the practicability of fencing as an aid in holding quarantine lines in Mexico, the commission has authorized the construction of a barbed-wire fence in the northern buffer zone at its eastern end. The fence,

supplementing present inspection and quarantine measures, will serve as an added barrier against the spread of the disease from the main infected area in central Mexico to the clean northern Mexican States and the United States.

The fence is to extend from a point below the town of Tamiahua on the Gulf Coast in the State of Veracruz to Tamazunchale, in Veracruz, a distance of about 90 miles. Crews have completed the clearing of a fence path through about 30 miles of jungle and swampy terrain. Setting the posts and stringing the wires will follow shortly. There will be gates at natural points of travel. Sanitary technicians are to be stationed at the gates to apply proper disinfection and to enforce rules prohibiting the movement of animals and certain animal products from the infected to clean areas. Mexican Army troops are to patrol the barrier to protect it. The construction and maintenance of the fence will provide answers to several questions relating to the practicability of fencing in Mexico.

Depth of Zones Aids Protection of
Quarantine Lines

A strategy of depth is being used in current operations to prevent extension of the present infected area in Mexico--in other words, to make the northern and southern quarantine lines hold firm.

The general program involves use of (1) a strong quarantine at the northern and southern limits of the infected area, (2) repeated inspections of susceptible animals in the buffer zones, (3) vaccination of susceptible animals principally within the buffer zones and especially near places where infection has been found and (4) the slaughter and burial of animals in infected and exposed herds in the buffer zones, and, also in the clean zones,

if infection appears there. The buffer zones, which are just inside the northern and southern quarantine lines, extend entirely across Mexico so there is no material opportunity for the protective forces to be outflanked. The width of the zones varies with the topography of the country and protective needs. For the most part they are at least 15 to 20 miles wide.

In and near these zones are now concentrated most of the personnel and equipment used in combating the disease. This method, providing depth of operations, insures much more substantial protection than guarding merely a thin line. Operations conducted within the zones include inspections, vaccination of healthy animals, slaughter and burial of animals in infected and exposed herds, disinfection, and general quarantine enforcement by civilian and military personnel.

Slaughter Operations, Though Limited,

Continue

In the northern buffer zone no suspected cases of foot-and-mouth disease were found during February, after repeated inspections. Consequently there was no occasion for slaughtering and burial operations in that area.

In the southern buffer zone, during February, such operations included the destruction of 4,303 animals of which 4,113 were cattle and the remainder small animals. The average indemnity for the cattle was \$51 and the small animals \$12.

Meat-Packing Operations in Northern Mexico

The U. S. Department of Agriculture has entered into contracts with six organizations in northern Mexico, for the purchase of canned meat and gravy, aggregating 72,500,000 pounds. Several of the packing plants are completed and others are under construction. Establishments that are now canning meat, under contract, are located at the following points: Juarez,

Cananea, Magdalena, Monterrey, and Piedras Negras.

In all the contracts, the price for the canned meat and gravy is 28 cents a pound, f.o.b., Mexican plant. In addition, the seller has the option of delivering to the Department canned edible byproducts, such as hearts, liver, and tripe, up to 20 percent of the canned meat and gravy called for in the contract. The price for such byproducts is 18 cents a pound. All the contracts made thus far call for delivery before June 30, 1948.

Organizations to which nearly three million pounds of the canned products have already been sold are the Preparatory Commission International Refugee Organization, National Catholic Welfare Council, and the U. S. Army.

The Department has provided, on request, technical assistance in matters pertaining to construction and operation of the plants. Such assistance has dealt, to a considerable extent, with inspection standards and the selection of suitable equipment.

More Border-Patrol Personnel

The United States patrol force on the Mexican-United States border has been increased to provide, in most areas, a double-shift coverage of 14 hours a day. In critical areas there is round-the-clock supervision. Selection of personnel has been gradual in order to obtain well-qualified men. As in the past, deep burial or incineration is used to destroy susceptible animals smuggled or straying into the United States and also animal products entering the country illegally.

Results of aerial surveys of the border between Brownsville, Texas and the eastern boundary of Brewster County, Texas, have been favorable. The Department has endorsed proposed legislation for the construction of

a fence along the international boundary. A suitable fence would increase the effectiveness of the border patrol, thereby reducing the threat of foot-and-mouth disease to the United States.

The Vaccine Situation

The United States has agreed to give Mexico all possible technical help in the development of vaccine for foot-and-mouth disease. The Mexican Government in turn has named a consultant board of five eminent Mexican scientists to supervise a research and vaccine-development program. Existing laboratory facilities of the Mexican Government in Mexico City are being remodeled and enlarged in preparation for this work. There have been received in Mexico 58,000 doses of foot-and-mouth disease vaccine from Argentina and 25,000 from The Netherlands.

After first being tested for safety and general suitability for field use, 25,000 doses of the Argentine vaccine were administered, during the latter part of February, in several localities in the northern buffer zone. The cooperation of livestock owners was fairly satisfactory though some resistance was met, evidently from fear that vaccination might in some way cause the disease. Through educational measures, the commission is endeavoring to dispel this belief, which has been encountered also in programs of vaccination against communicable human diseases.

Foot-and-Mouth Disease Research

The British laboratory at Pirbright, England, has identified eight lots of virus from Mexico, all of them being variants of type A. There are, however, at least two slightly different strains. Still other lots of Mexican virus recently sent to Pirbright are being examined.

Mention has already been made of shipments of Argentina and Netherlands

vaccine to Mexico. In addition, vaccines made with Mexican viruses have been ordered from government laboratories in Europe. The Mexican viruses now at Pirbright will be used in producing those vaccines. When made, they will be tested in Mexico on Mexican cattle.

Early in the year the U. S. Department of Agriculture received permission for United States research personnel to work in government laboratories in England, Denmark, The Netherlands, and Switzerland. Following this arrangement, discussed informally when Dr. H. W. Schoening of the Bureau of Animal Industry previously visited those laboratories, the Bureau designated Dr. L. O. Mott, Dr. H. W. Johnson, and Dr. E. A. Eichhorn, all veterinarians of the Pathological Division, for the assignment. These research scientists proceeded to Europe early in March.

Supplementary Information

Since the issuance of Supplement No. 11 on January 29, the Department has released, for public distribution, the following material relating to foot-and-mouth disease. The press articles contain further details on several topics briefly discussed in this report.

Reinforced Foot-and-Mouth Disease Quarantine Lines in Mexico Now Undergoing Critical Test. Press release, February 12, 1948.
Strengthening of Quarantine Lines Planned by Foot-and-Mouth Control Officials. Press release, February 24, 1948.
USDA Scientists Engage in Foot-and-Mouth Research in Europe. Press release, March 17, 1948.
Foot-and-Mouth Disease Quarantine Line Pushed Back. Press release, March 18, 1948.
Map (in color), The Foot-and-Mouth Disease Situation in Mexico, March 5, 1948.

Copies of the foregoing releases are available on request.

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