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ERADICATION OF SCREW-WORMS IN MEXICO

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HEARING

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON AGRICULTURE AND FORESTRY UNITED STATES SENATE

EIGHTY-NINTH CONGRESS

SECOND SESSION

ON

S. 3325 and H.R. 14888

BILLS TO AMEND THE ACT OF FEBRUARY 28, 1947, AS AMENDED,
TO AUTHORIZE THE SECRETARY OF AGRICULTURE TO COOPER-
ATE IN SCREW-WORM ERADICATION IN MEXICO

JUNE 23, 1966

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ERADICATION OF SCREW-WORMS IN MEXICO

THURSDAY, JUNE 23, 1966

U.S. SENATE,
SUBCOMMITTEE ON AGRICULTURAL RESEARCH
AND GENERAL LEGISLATION OF THE
COMMITTEE ON AGRICULTURE AND FORESTRY,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:10 a.m., in room 324, Old Senate Office Building, Senator B. Everett Jordan (chairman of the subcommittee) presiding.

Present: Senators Jordan of North Carolina, Montoya, and Young of North Dakota.

Senator JORDAN. The subcommittee will come to order.

Senator Montoya and Senator Fannin, we are glad to have both of you here.

One of these bills is your bill.

I am happy to see that the Department of Agriculture has come out with a favorable report as well as the State Department, which should make this reasonably easy to handle.

We are going to make both of the bills a part of the record. (S. 3325 and H.R. 14888 follow:)

[S. 3325, 89th Cong., 2d sess.]

A BILL To amend the Act of February 28, 1947, as amended, to authorize the Secretary of Agriculture to cooperate in screw-worm eradication in Mexico

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the first section of the Act of February 28, 1947 (61 Stat. 7) is amended by striking out in the first sentence "or rinderpest", and inserting in lieu thereof a comma and the following: "rinderpest, or screw-worm".

SEC. 2. Section 2 of such Act is amended by adding a new section as follows:

"SEC. 5. In carrying out this Act the Secretary of Agriculture is further authorized to cooperate with other public and private organizations and individuals."

[H.R. 14888, 89th Cong., 2d sess.]

AN ACT To amend the Act of February 28, 1947, as amended, to authorize the Secretary of Agriculture to cooperate in screw-worm eradication in Mexico

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the first sentence of section 1 of the Act of February 28, 1947 (61 Stat. 7) is amended by inserting "or screw-worm" after the word "rinderpest."

SECTION 2. The Act of February 28, 1947, is further amended by amending section 3 to read as follows:

"SEC. 3. In carrying out this Act the Secretary of Agriculture is further authorized to cooperate with other public and private organizations and individuals."

Passed the House of Representatives June 6, 1966.

Attest:

RALPH R. ROBERTS, Clerk.

Senator JORDAN. We will also put in the record the letter from the Department of Agriculture, and the State Department letter will be here. It is supposed to be on its way and it will follow.

(The reports follow:)

DEPARTMENT OF AGRICULTURE,
Washington, D.C., June 17, 1966.

HON. ALLEN J. ELLENDER,
Chairman, Committee on Agriculture and Forestry,
U.S. Senate.

DEAR MR. CHAIRMAN: This is in reply to your letter of May 16, 1966, requesting our views on S. 3325. The bill is entitled, "To amend the Act of February 28, 1947, as amended, to authorize the Secretary of Agriculture to cooperate in screw-worm eradication in Mexico."

This Department recommends enactment of S. 3325.

Under Public Law 80-8, this Department was authorized to cooperate with Mexico in the highly successful foot-and-mouth disease eradication program. The amendment proposed by S. 3325 would extend this authority to include screw-worm eradication.

Cooperative screw-worm activities were started in the Southwest in February 1962 as a 3-year trial program. The objectives of the program were (1) to eliminate screw-worm flies in Arkansas, Louisiana, Oklahoma, Texas, and New Mexico; and (2) to determine the requirements and the economic feasibility for establishing and maintaining an artificial barrier zone of sterile screw-worm flies along the Mexican-United States border. These two objectives have been accomplished.

The Federal Government has been given the responsibility by law and regulation to prevent the introduction of foreign pests into the United States. Therefore, maintenance of the barrier zone is a Federal responsibility.

In fiscal year 1966, a full-scale program was initiated to eradicate screw-worms in Arizona and to extend the screw-worm barrier west to the Pacific Ocean. Under the Second Supplemental Appropriation Act, 1965, funds were made available to start eradication activities in May 1965. The early start helped to prevent the usual heavy screw-worm migrations from Mexico into the United States, making it possible to eradicate the native screw-worm population from Arizona and California in less than one year. Not a single screw-worm was reported in Arizona between December 15, 1965, and March 23, 1966, even though there are areas where the pest can live all winter.

After eradication was achieved in Arizona and California, the sterile screw-worm fly drop was concentrated further south in the barrier zone to reduce the heavy native screw-worm populations in northern Mexico south of Arizona. This should reduce the number of screw-worms that migrate into Arizona, New Mexico, Texas, and other States during the summer of 1966.

At present, the screw-worm program consists of operation of the barrier zone from the Gulf of Mexico to the Pacific Ocean and elimination of any cases of screw-worm which penetrate the barrier. The barrier zone is located along the Mexico-United States border in order to take advantage of existing border control of the movement of livestock. The major portion of the zone is in Mexico, but it also includes the southern portions of each of the States of the United States which border on Mexico. This barrier will have to be operated indefinitely to prevent reestablishment of screw-worms in the United States. As long as the barrier remains in the present location, the Department is faced with a continuing high annual cost of operation. It is essential that we find means of reducing the cost and at the same time continue to provide protection against reestablishment of screw-worms in the United States.

One possibility for a substantial reduction in annual operating costs is movement of the barrier zone south to the Isthmus of Tehuantepec, the narrowest point of Mexico. At that location, the barrier would vary from 140-250 miles in width as compared to the present more than 2,000 mile barrier along the Mexico-United States Border. In order to move the barrier to southern Mexico, screw-worms will have to be eradicated in all areas north of the proposed new site.

An extensive field survey is presently in progress in the Republic of Mexico south of the existing artificial barrier zone to obtain information not presently available relating to (a) areas in Mexico favorable to screw-worm breeding; (b) natural population densities during different seasons of the year; (c) favorable resting areas and dispersal patterns; (d) varying husbandry practices in different areas of Mexico; and (e) economic losses in Mexico and on other factors that would be involved in moving the barrier southward. Mexico is cooperating in this survey.

Preliminary results of the survey indicate that eradication of screw-worms from Mexico may well prove technically feasible and that an effective barrier can be maintained across the narrowest part of Mexico at less cost than operation at the present location. After completion of the survey, providing that final survey data confirm that movement of the barrier is economically advantageous to the United States, a proposed program—with estimated cost—will be developed for consideration by the two Governments. The proposed amendment to Public Law 80-8 would not commit the Department to expenditure of any funds. It would merely provide standby authority under which the Department could cooperate with Mexico in a joint screw-worm eradication program in the event such a program is found to be feasible and desirable.

The Bureau of the Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

ORVILLE L. FREEMAN.

DEPARTMENT OF STATE,
Washington, June 20, 1966.

HON. ALLEN J. ELLENDER,
Chairman, Committee on Agriculture and Forestry,
U.S. Senate.

DEAR MR. CHAIRMAN: The Department welcomes the opportunity to comment on the provisions of S. 3325—a bill to amend the Act of February 28, 1947, as amended, to authorize the Secretary of Agriculture to cooperate in screw-worm eradication in Mexico.

The Department supports this legislation which is aimed at reducing the prevalence of screw-worm in both the United States and Mexico.

It is noted that pursuant to the Act of February 28, 1947, such cooperation shall be made through and in consultation with the Secretary of State.

The Bureau of the Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

Sincerely yours,

DOUGLAS MACARTHUR II,
Assistant Secretary for Congressional Relations.

Senator JORDAN. Senator Montoya, we will be glad to hear from you at this time, sir.

Senator MONTOYA. Thank you, Mr. Chairman.

STATEMENT OF HON. JOSEPH M. MONTOYA, A U.S. SENATOR FROM THE STATE OF NEW MEXICO

Senator MONTOYA. I want to thank the committee for the opportunity to appear before you in support of S. 3325, a bill which I introduced in conjunction with other Senators, including Senator Fannin, to allow the United States to cooperate with the Government of Mexico in screw-worm eradication.

The screw-worm has long been a costly menace to the livestock industry in the United States. The screw-worm has finally been completely eradicated from the United States, but a constant vigil must be maintained the whole length of the United States-Mexico border to guard against the reintroduction of the screw-worm fly from Mexico. This means the maintenance of a "barrier zone" of approximately 2,000 miles in length.

To maintain a "barrier zone" of such length is an expensive undertaking. A more efficient and less costly means must be found.

This legislation would provide the Secretary of Agriculture with the authority to cooperate with the Government of Mexico in eradicating the screw-worm from Mexico and to maintain a "barrier zone" at a more narrow point in the Mexican interior. This could result in the

establishment of a "barrier zone" of 150-200 miles in length as opposed to the present "barrier zone" of 2,000 miles in length, along the Texas, New Mexico, and Arizona border. The substantially reduced costs are at once apparent.

I wish, at the outset, to bring to the subcommittee's attention similar action already taken by the House. The House, after hearings and due deliberation, has already approved an identical measure—H.R. 14888. In addition, the Department of Agriculture, in its report to the full committee, has strongly supported this legislation.

From what the staff tells us, the Department of State and the Agriculture Department have submitted reports to the committee approving the legislation.

I would like to describe just briefly how the screw-worm fly causes such great economic losses. The screw-worm fly is about twice the size of a house fly. The female lays its eggs, about 250, on the edges of cuts or wounds of livestock and other warm-blooded animals. Larvae hatching from the eggs looks like tiny screws. They tear away at living flesh and kill untreated animals. Grown larvae drop to the ground and enter the pupal stage in the soil. About 21 days from the egg stage, new flies emerge from the soil to begin the next cycle.

The eradication of screw-worms is a relatively simple operation. It is based on an application of atomic energy. Radioactive cobalt is used to sexually sterilize millions of screw-worm flies. (At present, millions of sexually sterile screw-worm flies are reared weekly in a modern, efficient plant near Mission, Tex.) These sterilized screw-worm flies are then airdropped over the infected areas. Native female flies that have mated with sterile males deposit eggs that do not hatch. The continued release of sterile flies in infected areas eventually eliminates the native screw-worm population.

Using this technique, screw-worm flies were eliminated in the Southeastern States in a 3-year period (1957-59); and in Arkansas, Louisiana, Oklahoma, Texas, and New Mexico beginning in 1962. In May 1965, screw-worm eradication was started in Arizona and California and was highly successful in eradicating the pest in the first year of activities.

The livestock industry losses wrought by the screw-worm in Southwestern States, previous to an eradication program undertaken in 1962, are estimated to have ranged as high as \$100 million annually. The losses were even greater in the Southeastern States before the screw-worm was eradicated from that area in 1957 to 1959.

I have more information for the record Mr. Chairman, and I would like permission to file the complete statement.

Senator JORDAN. You may have it follow your statement in the record, if you would like.

Senator MONTROYA. Yes.

Senator JORDAN. It is so ordered.

(The complete statement of Senator Montoya follows:)

Mr. Chairman, and members of the subcommittee, I wish to thank you for providing me with this opportunity to appear before you in support of S. 3325, a bill which I introduced to allow the United States to cooperate with the Government of Mexico in screwworm eradication in Mexico.

The screwworm has long been a costly menace to the livestock industry in the United States. The screwworm has finally been completely eradicated from the United States, but a constant vigil must be maintained the whole length of the

United States-Mexico border to guard against the reintroduction of the screwworm fly from Mexico. This means the maintenance of a "barrier zone" of approximately 2,000 miles in length.

To maintain a "barrier zone" of such length is an expensive undertaking. A more efficient and less costly means must be found.

This legislation would provide the Secretary of Agriculture with the authority to cooperate with the Government of Mexico in eradicating the screwworm from Mexico and to maintain a "barrier zone" at a more narrow point in the Mexican interior. This could result in the establishment of a "barrier zone" of 150-200 miles in length as opposed to the present "barrier zone" of 2,000 miles in length. The substantially reduced costs are at once apparent.

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I would like to describe just briefly how the screwworm fly causes such great economic losses. The screwworm fly is about twice the size of a house fly. The female lays its eggs, about 250, on the edges of cuts or wounds of livestock and other warm-blooded animals. Larvae hatching from the eggs look like tiny screws. They tear away at living flesh and kill untreated animals. Grown larvae drop to the ground and enter the pupal stage in the soil. About 21 days from the egg stage, new flies emerge from the soil to begin the next cycle.

The eradication of screwworms is a relatively simple operation. It is based on an application of atomic energy. Radioactive cobalt is used to sexually sterilize millions of screwworm flies. (At present, millions of sexually sterile screwworm flies are reared weekly in a modern, efficient plant near Mission, Texas.) These sterilized screwworm flies are then airdropped over the infected areas. Native female flies that have mated with sterile males deposit eggs that do not hatch. The continued release of sterile flies in infected areas eventually eliminates the native screwworm population.

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The livestock industry losses wrought by the screwworm in Southwestern states, previous to an eradication program undertaken in 1962, are estimated to have ranged as high as \$100 million annually. The losses were even greater in the Southeastern States before the screwworm was eradicated from that area in 1957 to 1959.

With the virtual eradication of the screwworm in the United States, the problem is now one of preventing reinfestation along the entire United States-Mexico border. As I previously stated, this is being done by maintaining an artificial barrier zone of sterile screwworm flies along the full length of the United States-Mexico border. This requires continued release of sterile flies over the barrier zone. Maintaining this great line (sterile fly barrier zone) over 2,000 miles along the Mexico border costs the United States approximately \$5.2 million annually.

For maximum effectiveness this barrier zone from the Gulf of Mexico to the Pacific Ocean must be maintained as one operation. The maintenance of any portion of the barrier zone is dependent upon the proper maintenance of adjacent portions in order to protect all states. Maintenance of this barrier is considered to be a Federal responsibility because program operations must be conducted largely within the Republic of Mexico, with the consent of the Mexican Government.

The prospect of continuing high annual cost to maintain livestock in the United States free from screwworms makes it essential to find means of reducing the cost and, at the same time, prevent the reintroduction of screwworm into the United States. An extensive field survey of the situation is being conducted throughout the Republic of Mexico south of the existing artificial barrier zone as far as the Mexico-Guatemala border to determine the problems of eradicating the screwworm in Mexico. Mexico is cooperating in this survey. After completion of this survey a proposed program, with estimated cost, is to be developed for consideration by the two Governments.

Preliminary results of the survey confirm the opinion that eradication of screwworms from Mexico is feasible and that an effective barrier can be maintained across the most narrow part of Mexico, at the Isthmus of Tehuantepec which is

only approximately 150-200 miles across, at a fraction of the cost of the present 2,000 mile-long location at the United States-Mexico border.

Mexico has indicated its interest in a jointly-financed effort to eradicate the screwworm in Mexico. However, the Secretary of Agriculture does not presently have authority to cooperate with Mexico in screwworm eradication. S. 3325 would provide this authority.

S. 3325 would amend Public Law 8 simply by adding screwworm to the list of pests (foot-and-mouth disease and rinderpests) and would enable the Secretary of Agriculture to cooperate with Mexico in screwworm eradication just as he has cooperated with Mexico in the highly successful foot-and-mouth disease eradication program.

This legislation would not force the Secretary to enter into a program with Mexico. It would merely arm the Secretary with the authority to enter into discussions with the Government of Mexico and consider a joint program proposal after which discussions would be held with the Congress.

There has already been established an extremely successful precedent for joint United States-Mexico governmental cooperation in combating diseases threatening our livestock. The Act of February 28, 1947, which I seek to amend, was enacted as a result of an outbreak of foot-and-mouth disease in Mexico in December 1946. By early 1947, this disease had spread over a large part of Mexico and was an eminent threat to the livestock in the States that border Mexico and eventually to the entire livestock population in the United States. Congress responded to this threat and acted to protect the immunity of the United States livestock.

As a result of Congressional action to meet the threat of foot-and-mouth disease, Public Law 8 was approved on February 28, 1947. This act authorized the Secretary of Agriculture to cooperate with the Government of Mexico in the control and eradication of foot-and-mouth disease and rinderpest (a virile infection of cattle and swine).

With the authority granted to him by Public Law 8, the Secretary of Agriculture was able to work jointly with the Mexican Government. A joint commission was established almost immediately and by 1952 the eradication campaign was completed. There was a brief flareup in 1953 but it was soon put down. Thus, through the cooperative efforts of the United States and Mexican Governments, foot-and-mouth disease was completely eradicated by December 1954.

United States and Mexican personnel demonstrated that they could work effectively together in the many phases of the eradication campaign. In addition, Mexican troops enforced the quarantines to prevent the disease from being spread further through the movement of infected livestock. New roads and landing strips had to be built to get heavy equipment to inaccessible outposts which included thinly settled mountain regions and tropical forests.

Almost a million infected animals were slaughtered in 1947 before a vaccination control plan was adopted whereby vaccination teams worked in successive waves inward from the borders of the quarantine zone. In succeeding years, ten of thousands more livestock had to be destroyed.

It was a hard and costly battle, but eventually the campaign was successful.

The eradication of foot-and-mouth disease from Mexico marked a milestone in bilateral cooperation in control of animal diseases. Successful conclusion of the campaign meant that foot-and-mouth disease had not gained a permanent foothold in North America.

During the seven years from 1947 to 1954, the United States spent approximately \$134 million, and Mexico spent approximately \$22.5 million in direct contributions in combating foot-and-mouth disease. This latter figure does not include salaries paid by the Mexican Government or the expenses of the use of approximately 25 percent of the Mexican Army during the project.

The costs were great, but if foot-and-mouth disease had been permitted to spread northward to the international border it would have been impossible to keep foot-and-mouth disease out of the rest of the continent, and the costs would have been incalculable.

Just as Congress rose to the threat of foot-and-mouth disease to the livestock of the United States, Congress can and should likewise rise to the occasion and meet the threat presented by the presence of the deadly screwworm just across our border in Mexico.

The successful eradication of foot-and-mouth disease through joint governmental efforts attests to the desirability, to the economic necessity, of likewise jointly

combating the pestilent screwworm. This can be effected by enactment of S. 3325.

I urge this subcommittee to take prompt and favorable action on this bill.

Thank you.

Senator MONTROYA. In this legislation we are giving authority to the Secretary of Agriculture similar to the hoof and mouth program a few years ago, whereby he entered into agreements with the Mexican Government to provide for joint cooperation by this Government and the Mexican Government to eliminate hoof and mouth disease. Our herds were in constant danger of being infected on this side of the border. We are amending the hoof and mouth disease statute by simply adding "screw-worm" to the provisions—that is the only change.

Now, another thing that bears a little more explanation is the barrier zone. The borders of the States that I have previously mentioned in my statement, comprise about 2,000 miles in length along the Mexican border. Now, in order to completely eradicate any danger to our herds here in this country, we must not only maintain this barrier zone for some reasonable length of time, but the screw-worm must also be eradicated in Mexico down to a narrow point in southern Mexico which would provide a barrier only—150 to 200 miles long. It would be much more economical to maintain this protective barrier zone than the present one. The screw-worm danger would also be moved farther from the border of the United States.

That is what this legislation is designed to accomplish, to enable the Secretary of Agriculture to enter into an agreement for a joint program to eradicate the Mexican fly within the plan or blueprint that I have outlined.

Senator JORDAN. There will be no problem with the Mexican Government in working out this treaty, will there?

Senator MONTROYA. Not at all, because the Mexican Government experienced great success and great cooperation from our Government during the hoof and mouth disease, and I am sure that they would be very willing. In fact, the Mexican Government is presently cooperating in the barrier zone that we now have against the screw-worm fly.

Senator JORDAN. I remember about the hoof and mouth disease, because they were as much interested in that as we, for their own sake, for the cattle they had. And they are the same on this, I imagine.

Thank you very much.

Senator Fannin, we will be glad to hear from you, sir.

STATEMENT OF HON PAUL J. FANNIN, A U.S. SENATOR FROM THE STATE OF ARIZONA

Senator FANNIN. Thank you, Mr. Chairman, Senator Montoya. I appreciate very much the opportunity to appear before you this morning to support this bill.

Senator JORDAN. Glad to have you.

Senator FANNIN. I want to commend Senator Montoya for a very excellent, comprehensive statement in exploring this problem.

Senator JORDAN. Let me ask you a question. You seem to be an authority on this. How far does this infection reach into the United States proper? To some degree, pretty well over it?

Senator MONTÓYA. No, I will tell you why. The infection can come into the United States and does come in because we are importing some cattle from Mexico. Occasionally, the screw-worm is transported on cattle or with the help of wind the fly will travel quite long distances. It may infect some of our herds here in this country in the warm climates. Now, if the cattle are taken to a cold climate, the screw-worm perishes; no further damage occurs. Therefore the screw-worm cannot survive in cold climates.

Senator JORDAN. I was on a hunting trip near Savannah, Ga., about 5 or 6 years ago—maybe a little longer. One of the men in our party killed a deer—I did, too, but mine did not have this. He said it had a screw-worm in it. It had eaten the whole side of his head off. The ranger there said it was a screw-worm. Is that the way they work on them?

Senator MONTÓYA. Yes; the flies land on open wounds and lay their eggs. Then, when the larvae hatch in a few days, they drop to the ground, and soon emerge as flies. This cycle is repeated many times.

Senator JORDAN. I did not know whether it was prevalent down there or not, or just an occasional case like that.

Senator FANNIN. At one time, it was very prevalent throughout the warm areas of the country.

Senator JORDAN. That is right up from Savannah, so it is warm down there.

Senator FANNIN. This legislation represents a logical step forward beyond the highly successful screw-worm eradication program that has been conducted in the United States. As I stated before, I want to express my wholehearted support of the bill.

You will hear from witnesses who can testify from professional knowledge and experience about the screw-worm problem and the wisdom of the type of international control program which this legislation will make possible. I merely want to take a few moments to relate some personal observations growing out of my experience as Governor of Arizona.

I want to relate that during the time that I was working with the Mexican people, they expressed both from the standpoint of the State government, the State of Sonora, and from the standpoint of the Cattle Association of Mexico, their wholehearted support of this program. California and my State of Arizona were the last two States to be declared free of native screw-worm flies.

Our State control authorities, working in harmony with their Federal counterparts and with the livestock industry, have contributed to making this program one of the most successful animal health efforts ever conducted in this country. The State of Arizona appropriated matching funds to be used over a 2-year period for screw-worm eradication, and livestock producers themselves have raised \$350,000 from their industry to get the job done. So this has received the support both of the livestock industry in Arizona as well as State support.

Enough knowledge has been acquired now to know that the few cases being found have been caused by flies transported from Mexico. Thus, it seems to me highly logical that we extend our efforts to our sister Republic so that the benefits will accrue to the livestock of both nations. We will be protecting the investment we have already

made and, at the same time, assisting the Mexican livestock producers to obtain equivalent benefits. I can assure the committee that the representatives of the Mexican Government and the producers will be pleased to cooperate in such a program. Arizona and the State of Sonora in Mexico are now enjoying many expanded benefits from cooperative ventures in other areas of endeavor. I might also point out that the University of Arizona and the University of Sonora are continuing a close research and study program in animal husbandry. Our State's working relationships with the State of Sonora have never been better, and I am assured of their enthusiastic cooperation in a screw-worm program.

I very much appreciate having the privilege of presenting my views on this subject.

If there are any questions, Mr. Chairman, I shall be glad to try to answer them.

Senator JORDAN. First I want to say to Senator Young that I am glad he is here. Senator Montoya has already made his statement. He put a transcript of it in the record.

You know, he is one of the authors of this bill, along with Senator Fannin, Senator Anderson, Senator Hayden, Senator Kuchel, Senator Murphy, Senator Tower, and Senator Yarborough. The Agriculture Department has sent a favorable report; the State Department is sending one which has not arrived yet, but they assure us it is favorable.

The House has passed H.R. 14888.

Senator MONTOYA. Right.

Senator JORDAN. Which is almost an identical bill to Senator Montoya's bill.

Senator Young, do you have any questions to ask either of these gentlemen?

Senator YOUNG. I am sorry I am late getting here. I had an office full of people this morning.

I am particularly interested in this subject, as this has become quite controversial in the Agriculture Appropriations Subcommittee, of which I am the ranking Republican. We went into this there in some detail last year. Just how would this change the present situation? Will this be a cooperative venture with Mexico which we do not have now?

Senator MONTOYA. Well, the way the present effort is working, Senator Young, the different States along the border of Mexico—namely, California, Arizona, Texas, and New Mexico—through their cattle associations or the State agencies dealing with cattle sanitation and other branches of the State government, in cooperation with the Department of Agriculture and by a matching fund approach, have been very successful in eliminating the screw-worm from this border. They have created a barrier zone wide enough so that they are able to stop the flight of these flies to points within the United States.

Now this is a 2,000-mile barrier zone that we have right now, and it requires constant vigilance and attention. So long as the screw-worm fly remains in Mexico without eradication, and that is the case today, we are going to have to maintain this barrier zone at a great cost. So what we are trying to do through this bill is to authorize the Secretary of Agriculture to enter into an international agreement with Mexico, such as was done in the hoof and mouth disease program,

so that by joint cooperation the screw-worm will be eradicated down to a point in the extreme southern part of Mexico—from the Gulf of Mexico to the Pacific—and there a barrier zone will be created, 150 to 200 miles long. Thus, we will eliminate the costly 2,000-mile barrier.

Senator YOUNG. As I recall, the main discussion last year revolved around whether the State of Texas, and I think some others, should have the sole responsibility of eradication above this buffer zone. Am I correct?

Senator MONTROYA. When I was on the Appropriations Committee in the House questions were frequently raised as to whether the States or Federal Government should shoulder this responsibility.

Senator YOUNG. Above this buffer zone?

Senator MONTROYA. That is right, within the exterior boundaries of the States concerned. But we always won that battle in the Appropriations Committee. We always got matching funds.

Senator YOUNG. I know they had a long battle last year. This appropriation was tied up in conference for about 2 months.

What is the estimated cost of this program? I was familiar with the hoof and mouth disease problem.

Off the record.

(There was discussion off the record.)

Senator MONTROYA. I cannot tell you what the estimated cost will be as it all depends on how much of a burden Mexico agrees to assume.

However, it will not be as costly as the hoof and mouth disease program. This program was very expensive as it was necessary to buy and then slaughter diseased cattle.

Senator YOUNG. The Mexican Government finally refused to go along with that. They had their own vaccination program which they thought would eradicate it. We did not believe it would, but they did finally eradicate it that way.

Senator MONTROYA. I believe they killed over a million cattle.

Senator FANNIN. This is a proven program and has been extremely successful. It does have the cooperation of the States along the border. As I illustrated, in the State of Arizona, we have a 2-year period for screw-worm eradication in which the livestock producers themselves have raised \$350,000.

Senator YOUNG. Unless you did this, this would be a continuing problem for years to come?

Senator FANNIN. Yes; from the standpoint of our State borders, we must have a program that extends down to Mexico; otherwise, the flies would continue to come in, be transported in, and the States would have this problem. It would naturally infect other States as it infected our State.

Senator JORDAN. How far do these flies fly?

Senator FANNIN. Most of the trouble has been coming from the livestock in Mexico.

Senator JORDAN. It is not a matter that they can fly any distance?

Senator FANNIN. Dr. Anderson said about 180 miles.

Senator JORDAN. That they can travel?

Senator FANNIN. Are most of them brought in on the livestock?

Dr. Anderson says no; most of them migrate.

Senator JORDAN. I guess it depends on whether they get a good tailwind how far they can go. I am sure of that; it makes a lot of difference. They will ride it.

Senator Fannin, do you have anything further?

Senator FANNIN. No, unless there are any questions. I very much appreciate being with you this morning.

Senator JORDAN. Senator Young, do you have any questions?

Senator YOUNG. No; I do not think so. I am quite familiar with it, except for this new proposal for eradication of the fly within Mexico. Offhand, I think it is a good suggestion.

Senator JORDAN. Well, I am certain that—I am told that was the same law as we have on the hoof and mouth disease, but they just added “screw-worm” to the same language, so the treaty can be the same thing.

It makes good sense that if there is a fly right here and we are here, he is going to keep right on infecting us unless we can kill him over there. The States are to be commended for the effort they have put into it, along with the livestock people.

Thank you very much. We appreciate your being with us.

Senator FANNIN. Thank you very much, Mr. Chairman.

Senator JORDAN. You may stay as long as you like.

Senator FANNIN. Thank you kindly, but I do have another committee meeting.

Senator JORDAN. Dr. Anderson?

Before you start, I want to put in a statement from Senator Hayden in support of this bill; another one from John Lynn, of the Farm Bureau, in support of the bill; one from Reuben Johnson, in support of the bill; and one from Harry Graham.

Off the record.

(There was discussion off the record.)

(The documents referred to follow:)

STATEMENT BY HON. CARL HAYDEN, A U.S. SENATOR FROM THE STATE OF ARIZONA

Mr. Chairman, I am pleased to appear today before your Committee to testify on behalf of S. 3325, a bill I have co-sponsored with my Colleagues from States bordering on Mexico, which would amend Public Law 80-8 to permit a cooperative effort between the United States and Mexico to eradicate the screwworm.

Since initiation of the Southwest Screwworm Program in 1962, this disastrous livestock pest has been all but eradicated from those border States between the Gulf of Mexico and the Pacific Ocean. The last segment of the barrier zone, the border along the States of Arizona and California, was established as late as May, 1965, and, according to the Department of Agriculture, the adult screwworm population in those two States was eradicated in the year that has since passed. This remarkable achievement now presents the Department of Agriculture with the responsibility of full Federal maintenance of the barrier zone to prevent further reinfestations of screwworms from across the Mexican border. As this Committee is aware, the cattle growers in Texas, New Mexico, Arizona, and California contributed to the eradication expenses of areas within the United States, but rightly feel that the Federal Government should exercise its legal responsibility of preventing the introduction of foreign pests into this country.

Recognizing its responsibility, the Department of Agriculture has cooperated with Southwestern cattle groups, including the Arizona Cattle Growers' Association, in preparing S. 3325 for consideration by the Congress. It is that Department's opinion that initial studies have shown the feasibility of moving the barrier zone to a point in Mexico that would be much shorter and less expensive to maintain. For example, at the Isthmus of Tehuantepec, the zone would extend for 140-250 miles, compared with over 2010 miles along the U.S.-Mexico border. Additional and more extensive surveys are needed and it will be necessary to bring the Mexican Government into cooperative agreements to accomplish these investigations.

There is no better way to authorize screwworm investigations in Mexico than to amend Public Law 80-8, which originally set up the United States-Mexico cooperative program for control and eradication of the foot-and-mouth disease that

threatened the cattle industry along both sides of the border some twenty years ago. Therefore, I urge this Committee to give prompt and favorable consideration to S. 3325 so that the Department of Agriculture can begin necessary negotiations with Mexico—not later than the end of this calendar year.

WASHINGTON, D.C., June 22, 1966.

HON. EVERETT B. JORDAN,
*Chairman, Agricultural Research and General Legislation Subcommittee, Senate
Committee on Agriculture, Washington, D.C.*

DEAR SENATOR JORDAN: On behalf of the American Farm Bureau Federation we would like to express our support for S. 3325. This bill amends the legislation of 1947 to allow the Secretary of Agriculture to continue to cooperate in the screw-worm eradication in Mexico.

The work of farmers and ranchers and the federal government in the screw-worm eradication program has been outstanding. We are all greatly pleased over the announcement that the United States has been declared free of this livestock pest.

S. 3325 will make it possible for the U.S. Government to continue a cooperative program with Mexico in order to insure that the United States will remain free of screwworms.

We hope that this legislation can be enacted at an early date.

Sincerely yours,

JOHN C. LYNN,
*Legislative Director,
American Farm Bureau Federation.*

WASHINGTON, D.C., June 16, 1966.

HON. ALLEN J. ELLENDER,
*Senate Office Building,
Washington, D.C.*

DEAR SENATOR ELLENDER: Farmers Union is in support of S. 3325 to provide for cooperation with Mexico in eradicating the screw-worm fly.

This bill, as we understand it, would make it possible to establish a buffer zone South of the border and would benefit both Mexico and the United States. With the technical knowledge we now have, it is entirely possible that the screw-worm could be eradicated from the entire North American continent.

I respectfully request that you make this memorandum a part of the hearings on S. 3325.

Sincerely,

REUBEN L. JOHNSON,
*Director of Legislative Service,
National Farmers Union.*

STATEMENT OF HARRY L. GRAHAM, LEGISLATIVE REPRESENTATIVE, NATIONAL GRANGE

The National Grange has supported the objectives of S. 3325 for the last few years and urges the Congress to give this bill your prompt attention.

At our 1964 Annual Session, the Delegate Body of the National Grange adopted this resolution on screwworm eradication:

"Whereas, the Southwest Screwworm Eradication Program during the past two years has proved fully effective, and

"Whereas, the program must continue to treat a buffer zone several hundred miles wide in Mexico to help prevent reinfestation, and

"Whereas, costs thus far have included over \$3.2 million raised by livestockmen and sportsmen and another \$2.7 million provided by the State of Texas; therefore be it

"Resolved, That the National Grange take the stand that this program is in the public interest and under no circumstances should it be allowed to lapse; and, be it further

"Resolved, That since this program is now international in scope to the extent that a joint international program is indicated with the United States and Mexican

Federal Government obligated to furnish additional financial support to this program, that the National Grange urge support of such a program."

We feel this proposed legislation is important to all cattle producers throughout the United States. A present survey conducted by the Republic of Mexico indicates that the eradication of screwworms is feasible and that an effective barrier can be maintained across the narrow part of Mexico at a fraction of the costs of the present program.

At present, the U.S. Department of Agriculture does not have authority to work with the Mexican Government in screwworm eradication, although it does have authority to work with them in foot-and-mouth eradication programs. The eradication of the screwworm must obviously be a joint effort as well, and we therefore hope that the Congress will give its prompt approval to this bill allowing the USDA to consider a joint program proposal with the Mexican Government.

Senator JORDON. Doctor, we are glad to have you with us, sir. We shall be glad to hear from you as you wish.

**STATEMENT OF DR. R. J. ANDERSON, DEPUTY ADMINISTRATOR,
AGRICULTURAL RESEARCH SERVICE, U.S. DEPARTMENT OF
AGRICULTURE**

Dr. ANDERSON. Mr. Chairman and members of the committee, I appreciate the opportunity to appear before you to express the views of the Department of Agriculture on S. 3325, now under consideration by this committee. The bill would amend Public Law 80-8 to authorize the Secretary of Agriculture to cooperate in screw-worm eradication in Mexico.

The Department favors enactment of S. 3325.

Public Law 80-8 was passed in 1947 to enable this Department to cooperate with the Government of Mexico in the eradication of foot-and-mouth disease in that country in order to protect the agricultural economy of the United States. Our livestock industry was threatened with extreme losses and disruption should foot-and-mouth disease have become established in this country. The program resulting from this legislation brought about the eradication of the disease in Mexico and removed this threat to the United States.

Enactment of S. 3325 would authorize the Secretary to cooperate with the Government of Mexico in the eradication of screw-worms if that should be found to be feasible and economically advantageous to the United States. In fiscal year 1958, a cooperative eradication program was undertaken with Florida, Georgia, South Carolina, Alabama, and Mississippi. This program was completed during the fiscal year 1960 with great economic benefits to that region of the Nation.

Following the success of the program, it was necessary to protect these States from reinfestation. A line of inspection stations was therefore established along the Mississippi River to prevent the movement of screw-worm-infested animals to the Southeastern States.

At that time, livestock producers in the Southwestern States were suffering losses from screw-worms estimated at from \$25 million to \$100 million annually. Cooperative screw-worm eradication activities were started in the Southwest in February 1962. The objectives of the program were—

- (1) To eliminate screw-worms in Arkansas, Louisiana, Oklahoma, Texas, and Mexico; and

(2) To determine the requirements for and the economic feasibility of establishing and maintaining a barrier zone of sterile screw-worm flies along the Mexico-United States border.

These objectives have been accomplished.

In fiscal year 1966, a full-scale program was initiated to eradicate screw-worms in Arizona and to extend the screw-worm barrier west to the Pacific Ocean. Native screw-worms have been eradicated from Arizona and California, and the barrier zone now extends from the Gulf of Mexico to the Pacific Ocean along the Mexico-United States border.

Senator YOUNG. Do you mind an interruption there?

Dr. ANDERSON. No.

Senator YOUNG. How far north does the barrier zone extend?

Dr. ANDERSON. The barrier varies in width. About 20 percent of it is on the United States side of the border, and about 80 percent is on the Mexican side of the border. It varies in width up to 300 miles, depending upon the concentration and the incidence of the screw-worm in Mexico which poses a threat to the United States. There are certain areas along the border where it is high and dry and the climatic condition is not too suitable to the propagation of screw-worm flies. There are seasons of the year in which they do not drop any flies. But the barrier, as such, extends all the way across the border. It does come up into the United States, varying from 50 to 125 miles.

Senator YOUNG. It does not extend as far over as Florida, though?

Dr. ANDERSON. The screw-worm, prior to 1960, infested Florida and all of the Southern States. It was capable of overwintering in Florida, overwintering in the southern parts of Texas, New Mexico, Arizona, and California. With the coming of warm weather in the spring, it would build up tremendous populations and migrate northward, and there have been times back in, I think, the late forty's where they moved as far as South Dakota, causing severe losses in that region, because people were not accustomed to them and did not know exactly how to handle them. But they would move with livestock and migrate up through the central part of the United States in the warm weather.

Senator YOUNG. They had no trouble in Florida since 1960?

Dr. ANDERSON. The screw-worm eradication program in Florida was completed during 1960. There were a few migrations from the Southwest over into that region prior to the initiation of the program in the Southwest. Since the screw-worm has been eradicated in the Southwest, there have been no recurrences in the Southeast.

Senator YOUNG. Do you think the eradication in the Southwest has a direct effect on preventing any future problem in the Southeast?

Dr. ANDERSON. Definitely so. Without the program in the Southwest, they would have been subjected to intermittent reinfestations of the Southeast, with the risk of the screw-worm becoming permanently established and overwintering in Florida.

Senator YOUNG. Do you still use the same method invented by Dr. Bushland?

Dr. ANDERSON. Yes, we do; with the rearing of the screw-worm and subjecting the pupae to the radiation of cobalt 60, then the release of the adult fly over the area involved.

Senator YOUNG. Dr. Bushland is now head of a new metabolism research laboratory at Fargo, N. Dak.

Senator JORDAN. Are they not working on that same method to kill the boll weevil?

Dr. ANDERSON. Yes, sir; they are attempting to apply the same technique to many pests that affect agriculture in this country. It is being used presently on the Mexican fruit fly along the California and Mexican border. They are carrying out research on the use of the sterility principle on the boll weevil and many of the others, including the tsetse fly in Africa. It is being investigated over there as a means for the control and eradication of that pest.

Senator YOUNG. Dr. Bushland is raising quite a few boll weevils up there in North Dakota, experimenting with them.

Senator JORDAN. I hope he keeps them up there. We do not need them.

Well, that is a very interesting development. It can save the farmers hundreds of millions of dollars in all sorts of crops. It is a great breakthrough in that particular field of research. I am glad to support any kind of legislation that will keep eradicating these diseases that are a plague to farmers and to industry. Some people think that if a farmer loses a cow, he is the only one who loses, but everybody loses. If the fellow does not have something to sell, he does not buy anything, and it goes on down the line.

It is a very interesting thing, and this has been done numerous times, to take a dollar and let a fellow spend it and trace that dollar and find out how far it goes, what it buys. Economics do not stop or start at the same place. They just keep on going.

You may proceed, sir. I am sorry to have interrupted you.

Dr. ANDERSON. The Federal Government has been given the responsibility by law to prevent the introduction of foreign pests into the United States. The Department believes that in order to meet this responsibility in the case of screw-worms, an effective barrier zone must be maintained between Mexico and the United States to prevent the reintroduction of this serious economic pest.

The major portion of the barrier zone is on the Mexican side of the border where we are conducting the program with the permission of the Mexican Government. The zone also includes the southern portions of each of our States which border on Mexico.

The screw-worm is endemic in Mexico. Therefore, to prevent reinfestation, a barrier will have to be maintained indefinitely. As long as the barrier remains in its present location, the Department is faced with a continuing high annual cost of operation. We are hopeful of finding means of reducing costs and at the same time to continue to provide protection against the reestablishment of screw-worms in this country.

One possibility for a substantial reduction in annual operating costs is movement of the barrier zone south to the Isthmus of Tehuantepec, the narrowest point of Mexico. At that location, the barrier would vary from 140 to 250 miles in length as compared with the present more than 2,000-mile barrier along the Mexico-United States border. In order to move the barrier to southern Mexico, screw-worms would have to be eradicated in all areas north of the proposed new location. This would materially reduce annual maintenance costs and also relieve the pressure of reinfestation with which we are constantly faced with the barrier in its present location.

An extensive field survey is presently in progress in the Republic of Mexico south of the existing artificial barrier zone to obtain infor-

mation not presently available relating to (a) areas in Mexico favorable to screw-worm breeding; (b) natural population densities during different seasons of the year; (c) favorable resting areas and dispersal patterns; (d) varying husbandry practices in different areas of Mexico; and (e) economic losses in Mexico, and to other factors that would be involved in moving the barrier southward. Mexico is cooperating in this survey.

Passage of the proposed amendment to Public Law 80-8 would not commit the Department to undertake a cooperative screw-worm program in Mexico or to expend any funds for that purpose. The Department up to this time has not made any plans to conduct a cooperative program in Mexico, but it desires to have standby authority under which it could work with Mexico and other public and private organizations and individuals in a joint screw-worm eradication program in the event such a program is found to be feasible, desirable, and economically sound.

I will be pleased to respond to any questions which the chairman or other members of the committee may have.

Senator JORDAN. Thank you, Dr. Anderson. That is a very interesting report.

I was wondering, when you said a while ago that you are already going over within the boundaries of Mexico, why you needed a treaty, but I can understand why you do. You are working with them now, however, with permission? I am sure they are glad to have you in there to help them on this thing.

Dr. ANDERSON. Yes, sir. There was some question as to whether the Department would have authority to cooperate with Mexico in an all-out eradication program. Our present work is being conducted under the 1903 Animal Quarantine Act, 32 Stat. 792, section 2, which authorizes the Secretary to carry out inspections and to issue regulations as he deems necessary to prevent the introduction of foreign diseases and pests into this country. We think that this action is necessary along the border to prevent the reintroduction, and therefore we would have the authority to do what we are doing. But we need to clarify the authority and be sure that we are following the intent of Congress if we should cooperate with Mexico, and therefore we think this proposed legislation would certainly clarify the air in that respect.

Senator YOUNG. Would you use CCC funds?

Dr. ANDERSON. No, sir. If a program should be developed with the mutual agreement of the Mexican Government, and the financial arrangements for sharing the cost of the program are all worked out, then the Department would come forward to the Congress and ask for appropriated funds to carry out a joint program.

Senator YOUNG. These would be direct appropriations?

Dr. ANDERSON. Direct appropriations.

Senator YOUNG. The foot-and-mouth disease was paid for out of CCC and then they were reimbursed.

Dr. ANDERSON. That is right.

Senator YOUNG. You do not have any limit on authority to spend the funds in this authorization?

Dr. ANDERSON. No, sir, but—

Senator YOUNG. Of course, that could be limited by the Appropriations Committee.

Dr. ANDERSON. Oh, yes, the Appropriations Committee would certainly have the say-so on how much would be made available for that purpose.

Senator YOUNG. Is there any limit on the amount that can be spent for eliminating foot-and-mouth disease in Mexico?

Dr. ANDERSON. No, sir; I believe that the authority that the Secretary had was that he was authorized, and this, I think, is part of the annual appropriations language, he is authorized to expend funds available to the Department to combat outbreaks of foreign diseases to the extent necessary. This may include funds from the Community Credit Corporation. I think that has no binding effect—

Senator YOUNG. I would think it would be easier to get approval for this than it would for the broader authority under CCC, because the Appropriations Committee would have a more direct control over the amount of money that was spent and how you do it.

Dr. ANDERSON. The CCC authority would not be extended to cover screw-worms. It is specifically identified as to foot-and-mouth disease and other diseases which threatens the livestock and poultry industries of the United States.

Senator YOUNG. Have you any estimate as to the yearly cost of operating the additional program in Mexico?

Dr. ANDERSON. No, sir, we do not. That is one of the objectives of the present survey now underway, to determine if it is feasible, and if so, what type of program it would entail, and an estimate of the cost of the program.

Senator YOUNG. We already have a program. It would just be a matter of an additional program?

Dr. ANDERSON. It would be a matter of the additional program necessary to carry the eradication on further south.

Senator YOUNG. That is all I have.

Senator JORDAN. Doctor, in a program such as this, could you still let the Cattlemen's Association contribute matching funds if they so desired?

Dr. ANDERSON. This proposed legislation provides the Secretary with authority to cooperate not only with Mexico but with other organizations and individuals, so we could.

Senator JORDAN. States are doing it now and associations and individuals?

Dr. ANDERSON. Yes.

Senator JORDAN. Thank you very much, Doctor.

Senator YOUNG. I have just one more question.

Would embarking upon this program mean there may be a tendency for the cattlemen to withdraw their financial support of the program?

Dr. ANDERSON. This present Appropriations language that we are operating under in the Southwest did not specify, for example, in Texas and New Mexico, that the eradication activities had to be matched by the cooperator. It did prior to the eradication in Texas and New Mexico, Oklahoma, and Louisiana. It was binding in Arizona and California this fiscal year. The present language that is contained in the House bill did not provide for matching as it did this year.

Senator YOUNG. Are the border States contributing now?

Dr. ANDERSON. They are contributing this year. For the total program in the Southwest up to 1966, the total expenditure was about

\$17 million, \$14 million of which constituted cooperative activities, and New Mexico and Texas and the other States, and the livestock people, contributed almost \$7 million of the \$14 million for cooperative activity.

This fiscal year, the program cost is running around \$5.2 million for the entire operation, with the cooperators contributing, I think, \$1,200,000 and the Federal, exclusive of the cost of the survey in Mexico, which is \$325,000, \$3,800,000.

Senator YOUNG. Well, I think some local participation is good for the program. For example, I think cattlemen would be more cooperative in reporting immediately any infestation that they might find if they were responsible for part of the cost of it. I think the States would take much the same position. I do not think they should be burdened with a heavier program. I think there is some Federal responsibility here, but I would not want to discourage local participation.

Dr. ANDERSON. No, this program, if it should come about in Mexico under this authority, we would expect a cost-sharing arrangement with the Mexican Government, and they, in turn, have assurance from the livestock people that they would contribute toward the cost of the program.

Senator YOUNG. Thank you.

Senator JORDAN. You heard what I said a while ago about that deal down in Georgia. I have been thinking, that was about 10 years ago. There was some in Alabama—it was right along the coast.

Dr. ANDERSON. The screw-worm fly prior to the eradication program in the Southeast would overwinter in an area from Gainesville, across the peninsula of Florida, down to the keys. With the coming of warm weather, they would infest Georgia, Alabama, parts of Mississippi, come up into South Carolina, and even up into North Carolina, causing tremendous losses in livestock, which was estimated to be up to \$20 million a year.

Senator JORDAN. Does that get in rabbits, too?

Dr. ANDERSON. It gets in all warmblooded animals.

Senator JORDAN. Chickens, too?

Dr. ANDERSON. Yes; in chickens and even in humans. There have been reported cases in a human where the screw-worm fly deposited eggs on scratches and wounds resulting in larval infestation.

Senator JORDAN. Could it kill them, too?

Dr. ANDERSON. I do not know of any deaths of humans. Infested animals, if unattended, may die within 10 days.

Senator JORDAN. Really?

Dr. ANDERSON. Yes. Screw-worms cause not only destruction of the flesh, but a toxemia that causes the animal's death.

Senator JORDAN. I did not realize that. I thought it was a rather slow death, through destruction of the tissue.

Dr. ANDERSON. Where you have a heavy infestation, they continue to lay eggs on the edge of the wound, and it results in more screw-worm larvae feeding on the animal. That causes quite a toxic condition.

Senator JORDAN. Thank you very much. We appreciate your testimony. In fact, I have enjoyed it.

Dr. ANDERSON. Thank you.

Senator JORDAN. Now we have Mr. William C. Davis, from the Arizona Cattle Growers' Association.

Mr. Davis, we are glad to have you with us and we shall be pleased to hear from you.

Do you have a prepared statement?

**STATEMENT OF WILLIAM C. DAVIS, EXECUTIVE SECRETARY
ARIZONA CATTLE GROWERS' ASSOCIATION, PHOENIX, ARIZ.**

Mr. DAVIS. Yes, sir, I do.

Senator JORDAN. You may proceed as you wish, sir.

Mr. DAVIS. My name is Bill Davis. I am executive secretary of the Arizona Cattle Growers' Association. I am here today in a dual capacity; in addition to representing the Arizona Cattle Growers' Association, I am also speaking on behalf of the South West Animal Health Research Foundation which is the private group that has led the screw-worm eradication program in the Southwestern United States.

I would like to briefly bring the committee up to date on the program and then explain why we feel the passage of S. 3325 is so important to us.

After the successful eradication in 1960, of the screw-worm from Florida and other Southeastern States, livestock producers in States along the Mexican border decided to try to accomplish eradication in the rest of the United States. The Southwest program was started in 1962 and by fiscal year 1965 it was possible to discontinue the annual \$750,000 nonmatching Federal appropriation to protect the Southeast States from reinfestation. Up to that time, it had been necessary to maintain inspection service between the Southwest and the Southeast to keep the Southeast from being reinfected.

The original States in the Southwest program were Arkansas, Louisiana, Oklahoma, Texas, and New Mexico. A very remarkable job was done in these States and in early 1965 they were declared to be free from any native screw-worm flies. During 1963 and 1964 a strip along the eastern and southern border of Arizona was used as a buffer zone to prevent entry of the fly into the eradication areas of the Southwest program. This buffer zone treatment so reduced the number of screw-worm cases in Arizona that we requested that we be included in the program. The U.S. Department of Agriculture felt it would not be feasible to bring Arizona into the program unless California was included at the same time. This was agreed to, and these States were brought into the program in May of 1965. Appropriations were provided on a matching basis. By getting an early start in 1965, and by conducting an intensified eradication program in Arizona and California, the U.S. Department of Agriculture, on May 15 of this year was able to declare these States free of any native screw-worm population. Department scientists have determined that a period of 11 weeks of freedom from screw-worm is sufficient to prove that the native population has been eradicated. We had no screw-worms in these States between December 13, 1965, and March 21, 1966.

When the Southwest program was started it became necessary for non-Federal sources to provide a substantial portion of the matching funds required by Federal legislation. I believe this committee will be interested to know that livestock producers in all the participating Southwest States have met every cent of their obligations for matching

funds. In Arizona we are just completing our fund drive to complete the 1966 fiscal year. Arizona ranchers have contributed a total of \$350,000 as their portion of the matching requirement.

Senator JORDAN. May I interrupt at that point?

Mr. DAVIS. Yes.

Senator JORDAN. Was that so much per head?

Mr. DAVIS. Yes, sir. We recommended \$1 a head on range cattle, and we have just under 400,000 range cattle in Arizona, so you see, we were shooting at a pretty high figure. We did not quite make it. We had a goal of \$300,000, but we had a \$50,000 obligation from the previous fiscal year, so we had to come up with a total of \$350,000, and this was a little over a year's period. So we do think the livestock producers of the Southwest have kept faith with the Congress on their part of the program.

Senator YOUNG. Are there some infestations left in the United States yet? Are there any in New Mexico or Texas?

Mr. DAVIS. Senator, we have had a number of cases in Arizona, for example, this spring. We have had quite a concentration of cattle from Mexico along our Arizona-Mexico line, coming in for shipment into the United States. This has been quite a source of problem for us. The Sonora area has had a pretty severe number of cases, so we have had a kind of chain reaction from that.

We have had—I cannot give you the exact number of cases to date since March 21, but it has been probably 80, 85, 90, something like that.

Senator YOUNG. That is in Arizona?

Mr. DAVIS. Yes, sir, in Arizona.

Senator YOUNG. How about the other States?

Mr. DAVIS. I think there have been a few cases in some of the other States. Texas has had a few, I believe New Mexico has had a few, a handful, maybe.

Senator YOUNG. How far north?

Mr. DAVIS. Just along the line. In Arizona, we had one case in Mojave County, as I recall, which was about—in airline distance, it would be close to 200 miles.

Senator YOUNG. I am talking about Texas, now. Have you found any isolated cases a long way from the border?

Mr. DAVIS. Dr. Anderson could probably answer that. I do not know the exact location in Texas.

Dr. ANDERSON. No, sir, there have not been any cases very far from the border. There have been a few in the barrier zone from the U.S. side of the border in Texas. New Mexico, and Arizona, as Mr. Davis mentioned. There have been a very few just outside of the barrier, but adjacent to the barrier zone. It is the opinion of our scientists that these cases were the result of the migration through the barrier from old Mexico.

Senator YOUNG. Thank you.

Dr. ANDERSON. In other words, they are not self sustaining screw-worm populations. These cases are the result of migration from Mexico through the barrier.

Senator YOUNG. I am trying to get an education here in case this comes up in conference with the House on appropriations.

Senator JORDAN. I am glad you are getting all that information. It is interesting to me, too, because it is something I knew a little bit about, though nothing much. I am glad to learn a lot more about it.

Mr. DAVIS. As I have said, the major concern now is for the future of the program. Conceivably a barrier zone along the Mexican border, from the Gulf of Mexico to the Pacific Ocean could be maintained. This would require a permanent operation at a relatively high cost. Not high in comparison with the benefits derived, but high in comparison with the other possible alternatives. One other possible alternative is to authorize a cooperative program between the United States and the Republic of Mexico to eradicate the screw-worm southward into Mexico until an effective barrier can be maintained across the narrow part of Mexico, the Isthmus of Tehuantepec, which would be at a fraction of the cost of the present location.

Last year the Congress provided for an extensive field survey to be made in Mexico. This survey has been obtaining information not previously available relating to all aspects of the screw-worm situation in Mexico. The U.S. Department of Agriculture has stated that preliminary results of the survey confirm their earlier opinion that eradication of screw-worms from Mexico is feasible.

If, for just a moment, we want to look even further down the road, it seems entirely possible that instead of stopping at the Isthmus of Tehuantepec and maintaining a barrier at that point, the program could be extended to the Panama Canal. Much interest has been shown by governmental and livestock officials in Central America, and especially in Guatemala. This is a program which holds great potential as an instrument for economic and technical aid to our neighbors to the south.

Public Law 8, passed by the 80th Congress in 1947, established the authority for creating the Mexican-United States Commission for the Prevention of Foot and Mouth Disease. The success of that program is a matter of record. S. 3325, now being considered by this committee, proposes a simple amendment to the foot and mouth disease law to make possible the same kind of cooperative arrangement for the eradication of the screw-worm as was used in the foot and mouth disease program.

Mexican producers and Mexican Government officials have shown a strong desire to participate in screw-worm eradication. The National Livestock Confederation of Mexico has indicated their willingness to participate financially through a per head assessment on cattle sold. Many joint meetings have been held between United States and Mexican officials and organizations. In each case there has been solid agreement that Mexico wants to cooperate.

The immediate need, then, is to authorize a joint program with Mexico. S. 3325 would grant this authority.

This opportunity to express our support for S. 3325 is greatly appreciated, and we respectfully urge your favorable consideration.

I would be glad to answer any questions that I can.

Senator JORDAN. Thank you, Mr. Davis. It is interesting to me, and I am sure to the whole Congress, the increased interest that producers have, of all the commodities, livestock and other things, in helping themselves. We have this bill in cotton, you know, right now, where there is a producer program entirely to promote cotton. The boll weevil has been one of their problems, too, as you know. This is the reason I asked Dr. Anderson about the boll weevil. It is becoming more and more apparent that the producer needs to help himself to save himself.

I want to commend your association for the fine job you have been doing in helping your own case, in matching and so forth.

Senator, do you have any questions?

Senator YOUNG. I want to say, too, that your members of the Senate from Arizona, Senator Hayden and Senator Fannin and Senator Montoya of New Mexico and others have all been active in your behalf.

Senator JORDAN. I might say you have pretty fine Senators.

Senator YOUNG. If they cannot get any results, there will be no help for you.

Senator JORDAN. Senator Montoya, do you have any questions?

Senator MONTOYA. No, no questions, Senator, thank you.

Senator JORDAN. Senator Young and Senator Montoya, so far as I am personally concerned, I am willing for the subcommittee to report this favorably to the next full committee meeting. Do you have any objection to doing that?

Senator YOUNG. No, I think it should.

Senator MONTOYA. I so move, Mr. Chairman.

Senator YOUNG. I second it.

Senator JORDAN. I will vote "aye," and we will report this favorably to the next full Committee on Agriculture.

Senator MONTOYA. Thank you, Mr. Chairman.

May I also state that the clerk of the committee be authorized to make any technical corrections in the bill?

Senator JORDAN. Yes, that will be perfectly all right.

Off the record.

(Discussion off the record.)

Senator JORDAN. Thank you very much, Senators. This concludes the hearings.

(Whereupon, at 11:10 a.m., the hearing was concluded.)

(Additional statements filed for the record are as follows:)

STATEMENT OF HON. RALPH W. YARBOROUGH, A U.S. SENATOR FROM THE STATE OF TEXAS

Mr. Chairman, the Senate Agriculture Committee now has under consideration an important bill, S. 3325, introduced on May 9, 1966 by the distinguished Junior Senator from New Mexico, Senator Montoya. S. 3325 would authorize the Secretary of Agriculture to cooperate with Mexico in a screw-worm eradication program in that country. I feel privileged to be a co-sponsor of the bill.

This legislation is essential to protect cattle producers throughout the United States. For years Texas cattlemen have been familiar with the destructive capabilities of the screw-worm. Multiple infestations of screw-worm flies and larvae cause the death of the animal unless treatment is speedy and thorough. Even when discovered, infestations maim and stunt animals, retard weight gains, and increase the animal's susceptibility to disease.

The problem of the screw-worm in the United States was recognized long ago. Eradication of native screw-worm populations has been accomplished in the Southeast and Southwest States, and most recently in Arizona and California. A barrier zone of sterile screw-worm flies extends from the Gulf of Mexico to the Pacific Ocean along the Mexican border, preventing the entry of screw-worms from Mexico into areas of the United States which have been freed from this pest. The Federal Government bears responsibility for this program because the operations are conducted within the Republic of Mexico with the consent of the Mexican Government.

At the present time 1850 miles of barrier are maintained to halt the introduction of Mexican screw-worms into the United States. The proposal before us today could greatly reduce the cost of this program while insuring the security of our own animals. A survey is being conducted in Mexico to consider eradication of the screw-worm there. Indications are that an effective barrier could be main-

tained across the narrow part of Mexico, the Isthmus of Tehuantepec, for a fraction of the expense of the existing barrier. Coordination and cooperation between Mexico and the United States is essential.

The legislation before us now amends the act of February 28, 1947, as amended, and authorizes the Secretary of Agriculture to cooperate with the Mexican Government in screw-worm eradication. An open-ended authorization is provided; funds must be appropriated by Congress through the regular appropriations process.

I urge the passage of S. 3325 to protect the cattle industry of this country by extending southward the barrier zone of sterile screw-worm flies. The expense of the existing program will be reduced while the scope of protection is increased. As a Texan, I realize the great importance of this legislation. I hope that the Committee will act favorably on this bill.

STATEMENT OF HON. JOHN TOWER, A UNITED STATES SENATOR FROM THE STATE OF TEXAS

The screw-worm eradication program begun four years ago has virtually accomplished its purpose; in 1965, stockmen in Texas and New Mexico reported only 600 infestations, as compared to losses estimated at about \$100 million yearly prior to inauguration of the program.

Even in the first two years of operation, dramatic evidence of its effectiveness became apparent. Screw-worm infestations were reduced 75 percent in the first year; 99 percent the following year. Those who conceived of the program and carried it out deserve our appreciation, because we have all benefited—from cattle raiser to consumer.

But these remarkable results have not been achieved without some expenditure. As I am sure the members of the Committee are aware, the program consists of seeding sterilized screw-worm flies in a buffer zone along the United States-Mexico border.

These flies mate with normal flies which then produce only infertile eggs. The process of sterilization necessitates exposure of the flies to radioactive material, and is somewhat costly to maintain as a program.

A plan has taken shape to carry the belt down into Mexico and seed the area across the Isthmus of Tehuantepec, the narrowest point in Mexico. The subject bill, S. 3325 of which I am a co-sponsor, would allow the Secretary of Agriculture to cooperate with the government of Mexico in such a screw-worm eradication program. By seeding at the narrowest point in Mexico, rather than along the comparatively extensive Texas-Mexico border, the cost of the program would be considerably reduced. In addition, even greater protection would be accorded United States livestock. Effective as the present program is, there are still some infestation cases reported in the Rio Grande area near the border.

By moving the belt south, it is conceivable that the protection could be 100% effective—and at reduced cost. The Isthmus of Tehuantepec is 140 to 250 miles in width as compared to the present barrier area of over 2,000 miles.

A field survey to determine the best barrier area in Mexico is presently under way. Considerable research is being undertaken on a cooperative basis between the United States and Mexico to determine the habits of the screw-worm for purposes of more effective eradication procedures.

It is my pleasure to be a sponsor of S. 3325. No additional expenditures are requested or required for this grant of authority. The screw-worm eradication program is not experimental. Its results have already been dramatically demonstrated, and I urge the committee to report the bill with a recommendation that it be enacted into law.

DENVER, Colo., June 21, 1966.

HON. JOSEPH M. MONTOYA,
Senate Office Building,
Washington, D.C.

DEAR SENATOR MONTOYA: The American National Cattlemen's Association wholeheartedly endorses your bill, S. 3325.

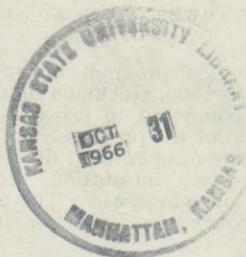
We feel it will in large measure facilitate the maintenance of a screw-worm-free status in the United States. The insect, as you well know, has been a scourge in your own state of New Mexico as well as across the whole southern part of the

United States. We feel that your amendment to the Act of February 28, 1947 will assist in moving the program of eradication south of our border and by doing so in the long run will considerably lower the continuing costs.

We ask that you please include this letter as a part of the hearing record on S. 3325.

Cordially,

C. W. McMILLAN,
Executive Vice President,
American National Cattlemen's Association.



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