

1010

584
Ag 8/1
Ser 1

THE SCRAPIE SLAUGHTER PROGRAM

y4
.Ag 8/1
Ser 1

HEARING
BEFORE THE
SUBCOMMITTEE ON LIVESTOCK AND
FEED GRAINS
OF THE
COMMITTEE ON AGRICULTURE
HOUSE OF REPRESENTATIVES
EIGHTY-EIGHTH CONGRESS

FIRST SESSION

ON

H.R. 4217

JULY 31, 1963

Serial T

Printed for the use of the Committee on Agriculture



KSU LIBRARIES

111900 301307

22
188
1702
AY
1/8 pA.
1702

COMMITTEE ON AGRICULTURE

HAROLD D. COOLEY, North Carolina, *Chairman*

W. R. POAGE, Texas, *Vice Chairman*

GEORGE GRANT, Alabama
E. C. GATHINGS, Arkansas
JOHN L. McMILLAN, South Carolina
THOMAS G. ABERNETHY, Mississippi
WATKINS M. ABBITT, Virginia
PAUL C. JONES, Missouri
HARLAN HAGEN, California
LESTER R. JOHNSON, Wisconsin
D. R. (BILLY) MATTHEWS, Florida
FRANK A. STUBBLEFIELD, Kentucky
RALPH R. HARDING, Idaho
G. ELLIOTT HAGAN, Georgia
GRAHAM PURCELL, Texas
JAMES H. MORRISON, Louisiana
BENJAMIN S. ROSENTHAL, New York
ROBERT B. DUNCAN, Oregon
ALEC G. OLSON, Minnesota
ROBERT L. LEGGETT, California
SPARK M. MATSUNAGA, Hawaii

CHARLES B. HOEVEN, Iowa
PAUL B. DAGUE, Pennsylvania
PAGE BELCHER, Oklahoma
CLIFFORD G. MCINTIRE, Maine
CHARLES M. TEAGUE, California
ALBERT H. QUIE, Minnesota
DON L. SHORT, North Dakota
CATHERINE MAY, Washington
DELBERT L. LATTA, Ohio
RALPH HARVEY, Indiana
PAUL FINDLEY, Illinois
ROBERT DOLE, Kansas
RALPH F. BEERMANN, Nebraska
EDWARD HUTCHINSON, Michigan

RESIDENT COMMISSIONER

A. FERNÓS-ISERN, Puerto Rico

Mrs. CHRISTINE S. GALLAGHER, *Clerk*

HYDE H. MURRAY, *Assistant Clerk*

JOHN J. HEIMBURGER, *General Counsel*

ROBERT C. BRUCE, *Assistant Counsel*

FRANCIS M. LEMAY, *Staff Consultant*

SUBCOMMITTEE ON LIVESTOCK AND FEED GRAINS

W. R. POAGE, Texas, *Chairman*

PAUL C. JONES, Missouri
D. R. (BILLY) MATTHEWS, Florida
GRAHAM PURCELL, Texas
ROBERT B. DUNCAN, Oregon
ALEC G. OLSON, Minnesota
SPARK M. MATSUNAGA, Hawaii

ALBERT H. QUIE, Minnesota
DON L. SHORT, North Dakota
CATHERINE MAY, Washington
DELBERT L. LATTA, Ohio
RALPH HARVEY, Indiana

CONTENTS

	Page
H.R. 4217, a bill to provide full indemnities for sheep slaughtered in connection with the scrapie slaughter program.....	1
Statement of—	
Anderson, Dr. R. J., Deputy Administrator, Agricultural Research Service, U.S. Department of Agriculture.....	20
Ashby, Woodrow W., Chesterfield, Va.....	19
Bendix, Dr. W. L., State veterinarian, State of Virginia.....	12
Betts, Hon. Jackson E., a Representative in Congress from the State of Ohio.....	2
Canestraight, John, Columbia, Mo.....	5
Gates, Stan, secretary-treasurer, American Cheviot Sheep Association.....	19
Helms, Alvin L., Belleville, Ill.....	9
Hutt, Fred B., professor of animal genetics, Cornell University.....	9
King, Thomas L., Whitehouse Station, N.J.....	12
Linn, Pearson L., president, National Sheep Association.....	7
Morrison, William L., Staunton, Va.....	18
Communications submitted to the subcommittee:	
Adriance, Harry, president, Pioneer Valley Sheep Breeders Association, letter.....	4
Atlaston, Allan C., secretary, National Society of Live Stock Record Association:	
Letter of May 13, 1963.....	3
Telegram of July 28, 1963.....	15
Azeltine, W. H., national Suffolk director, telegram of July 29, 1963.....	14
Flebotte, Mrs. Ernest, secretary, New England Sheep & Wool Growers Association, letter of June 5, 1963.....	3
Gates, Stan, American Cheviot Sheep Society, Inc., letter of April 16, 1963.....	2
Gilman, Roy A., secretary, American Hampshire Sheep Association, letter of April 17, 1963.....	4
Hospers, Lambert J. Roetman, Sheldon, Iowa, telegram of July 30, 1963.....	15
Hunter, George V., secretary, Pennsylvania Suffolk Sheep Association, letter of May 16, 1963.....	4
Iowa Suffolk Sheep Association, telegram of July 29, 1963.....	14
Jontz, Dewey M., Iowa State Sheep Association, telegram of July 29, 1963.....	14
Marsh, Edwin E., executive secretary, National Wool Growers Association, letter of July 30, 1963.....	4
Mitchell, C. W., secretary, Poland China Record Association, letter of April 18, 1963.....	2
Schooley, Ray, executive secretary, American Milking Shorthorn Society, letter of April 10, 1963.....	3
Additional data supplied to the subcommittee:	
Cause of scrapie.....	27
Comments concerning statement by Alvin L. Helms.....	39
Scrapie indemnity.....	43
Statement on appraisal and indemnity paid—Woodrow W. Ashby's flock, Augusta County, Va.....	25
Statement on 42-month incubation period of scrapie.....	42

CONTENTS

THE SCRAPIE SLAUGHTER PROGRAM

WEDNESDAY, JULY 31, 1963

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON LIVESTOCK AND FEED GRAINS OF THE
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m., in room 1310, Longworth House Office Building, the Honorable W. R. Poage (chairman of the subcommittee) presiding.

Present: Representatives Poage, Matthews, Purcell, Olson, Matsunaga, Quie, Short, May, Hoeven, Harvey, and Beermann.

Also present: Martha Hannah, staff assistant; Hyde Murray, assistant clerk; and Robert Bruce, assistant counsel.

Mr. POAGE. The committee will please come to order.

We have met this morning to consider a bill by Mr. Betts, H.R. 4217, for a change in the method of compensating owners of certain livestock that must be destroyed because of contagious disease.

Mr. Betts is here with us. He has with him several of his constituents and others who are interested in this legislation.

Without objection, we will include in the record at this point H.R. 4217.

(H.R. 4217 follows:)

[H.R. 4217, 88th Cong., 1st sess.]

A BILL To provide full indemnities for sheep slaughtered in connection with the scrapie slaughter program.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of Agriculture shall fully indemnify each owner of sheep which have been, or are hereafter, slaughtered in the course of a program for the eradication of scrapie in sheep. Full indemnification of an owner shall be the difference between the true appraised value of the sheep slaughtered and total of the payments (if any) theretofore made with respect thereto.

SEC. 2. There is hereby authorized to be appropriated such sums as may be necessary to make the payments required by this Act.

Mr. POAGE. As you know, we are rather pressed for time. The committee is able to assign only 1 hour to this matter and we are scheduled to stop at 11 o'clock regardless of whether you have all been heard or not. We will try to hear everybody if we can. We will have to limit time. I have been furnished with a list of some seven witnesses. These are sponsors of the bill. I think in fairness we can devote 30 minutes to the sponsors of the bill and then those who are in opposition and the Department may be heard. I do not know what the position of the Department is. Would you say you are for or against the bill.

Dr. R. J. ANDERSON (Deputy Administrator, Agricultural Research Service, USDA). The Department has not been asked for a report—

Mr. POAGE. I know, but you are asked to be here today. Are you for or against the bill?

Dr. ANDERSON. We are neither for or against it. We have not taken a position.

Mr. POAGE. All right, we will hear from you after a while anyhow.

I would assume that the Department of Agriculture would have some views. Anyway, Mr. Betts we will be glad to hear from you.

STATEMENT OF HON. JACKSON E. BETTS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. BETTS. I want to thank you for calling this meeting. Inasmuch as there are many witnesses here to appear for the bill, and I am not an expert, I want to defer to them.

I would like to at this time, Mr. Chairman, if it is permissible before this committee, to introduce into the record some letters which I have in support of the bill.

Mr. POAGE. Certainly. Without objection, they will be made a part of the record.

(The letters follow:)

THE AMERICAN CHEVIOT SHEEP SOCIETY, INC.,
Lafayette Hill, Pa., April 18, 1963.

Hon. JACKSON E. BETTS,
House of Representatives, Washington, D.C.

DEAR MR. BETTS: The American Cheviot Sheep Society, as evidenced by previous correspondence with the Department of Agriculture, are most concerned regarding the scrapie slaughter program in this country. We have a copy of H.R. 4217, bill introduced by you, and wish to assist in any way we may the enactment of this legislation.

Moral ethics make it mandatory that such a bill be passed to partially compensate those unfortunate enough to lose sheep under the present program.

Please inform us as to what course of action would be most constructive to assure passing of bill H.R. 4217.

Respectfully,

STAN GATES.
DEWEY WHEELER.

POLAND CHINA RECORD ASSOCIATION,
Galesburg, Ill., April 18, 1963.

Hon. JACKSON E. BETTS,
House of Representatives, Washington, D.C.

DEAR CONGRESSMAN BETTS: I should like to add the endorsement of the members of the Poland China Record Association to House bill H.R. 4217, to provide full indemnities for sheep slaughtered in connection with the scrapie slaughter program.

Certainly a purebred livestock breeder who has traveled many miles, put in much time and effort in establishing a breeding herd, is entitled to full and complete compensation when that effort and means of livelihood is wiped out by an arbitrary program of slaughter, sometimes without adequate proof that the disease involved in actually on the farm.

Likewise, the commercial producer is certainly entitled to the full cost of replacement stock, of a similar quality should his herd be treated in a similar manner.

As we move forward, more and more, into the field of disease eradication in our various species of farm animals, we must not set the precedent that 50 percent compensation is adequate, or we may run into severe opposition, and outright hostility and lack of cooperation in these efforts on the part of people affected.

Respectfully yours,

C. W. MITCHELL, *Secretary.*

NATIONAL SOCIETY OF LIVE STOCK RECORD ASSOCIATION,
Gurnee, Ill., May 13, 1963.

In re H.R. 4217.

Hon. JACKSON E. BETTS,
House of Representatives, Washington, D.C.

DEAR CONGRESSMAN BETTS: The National Society of Live Stock Record Association, in its annual meeting in Kansas City, Mo., on May 10, 1963, unanimously approved a resolution endorsing H.R. 4217, which provides full indemnities for sheep slaughtered in connection with the scrapie program.

This society has represented the pedigreed livestock stock breeders of all breeds and species for over 50 years and has cooperated with the Government in the eradication of the diseases that have plagued the industry in the last half century, and has seen them reduced to the very minimum, where a practical and fair program has been instituted.

No eradication program has been successful without indemnities to compensate for the loss of the animals, slaughtered, and whose ancestry in many cases, cannot be duplicated and whose potential is unlimited.

All segments of the livestock industry were represented at our annual meeting and they were in full agreement to the provisions of H.R. 4217, and earnestly pray for its passage, because it is the only reasonable and fair way to handle this program.

I am enclosing a list of our membership for your further information.

Sincerely,

ALLAN C. ATLASON.

AMERICAN MILKING SHORTHORN SOCIETY,
Springfield, Mo., April 10, 1963.

Hon. JACKSON E. BETTS,
House of Representatives.

DEAR MR. BETTS: As a member of the National Society of Livestock Records Association, we are vitally interested in anything that affects the registered livestock industry. It has come to our attention that you have introduced a resolution of considerable importance to one segment of the industry in the form of H.R. 4217.

It is apparent that in the process of eradicating a disease quite menacing to the sheep population, considerable economic hardship may be pressed upon the owners of valuable breeding animals. The disease involved creates additional problems because of this lengthy incubation period which requires the loss of many healthy animals.

The law now allowing Federal indemnity was patterned after the cattle regulation for Bangs and TB where only affected animals are slaughtered, and therefore does not give fair compensation for owners of sheep condemned under the scrapies program.

It is our considered opinion that the passage of H.R. 4217 would do much to correct a situation that is grossly unfair to a segment of the livestock industry. We sincerely hope your resolution will receive the support it deserves.

Yours very truly,

RAY SCHOOLEY, *Executive Secretary.*

NEW ENGLAND SHEEP & WOOL GROWERS ASSOCIATION,
Ludlow, Mass., June 5, 1963.

Hon. JACKSON E. BETTS,
Eighth District, Ohio.

DEAR MR. BETTS: As secretary of the above association, I would like at this time to say that this association would like to go on record as supporting H.R. 4217, which provides fair and equitable indemnities for sheep destroyed as a result of "scrapie" eradication.

Sincerely,

Mrs. ERNEST FLEBOTTE, *Secretary.*

THE SCRAPIE SLAUGHTER PROGRAM

PIONEER VALLEY SHEEP BREEDERS ASSOCIATION,
Amherst, Mass.

Hon. JACKSON E. BETTS,
Eighth District, Ohio.

DEAR MR. BETTS: The Pioneer Valley Sheep Breeders Association, an organization of sheep breeders of Massachusetts, would like to go on record in favor of bill H.R. 4217, a bill to provide full indemnities for sheep slaughtered in connection with the scrapie slaughter program.

It is the desire of this group to give full endorsement to the bill H.R. 4217.

Very truly yours,

HARRY L. ADRIANCE, *President.*

PENNSYLVANIA SUFFOLK SHEEP ASSOCIATION,
Stoneboro, Pa., May 16, 1963.

Hon. JACKSON E. BETTS,
U.S. House of Representatives, Washington, D.C.

DEAR MR. BETTS: Information regarding the bill, H.R. 4217, introduced by you, has been brought to the attention of the directors of the Pennsylvania Suffolk Sheep Association.

The directors of this association wish to commend you for introducing this bill and will endeavor to solicit support for it. Considerable injustice and inequality has existed in indemnities paid during the scrapie eradication program.

Your recognition of the fallacies of the present program will be gratefully appreciated by the sheep industry.

Respectfully yours,

GEORGE V. HUNTER, *Secretary.*

THE AMERICAN HAMPSHIRE SHEEP ASSOCIATION,
Stuart, Iowa, April 17, 1963.

Hon. JACKSON E. BETTS,
House of Representatives, Washington, D.C.

DEAR SIR: It has just come to our attention that you have introduced H.R. 4217 in the House of Representatives. We should like to commend you in such action and offer any support or help we can give toward passage of such a bill.

We feel that any citizen possessing or owning property that is to be condemned for the welfare of a nation and its people, should be reimbursed for such loss from public funds. Many States have refused to cooperate with such on a State basis, primarily because they have failed to appreciate the motive behind the "scrapie" action by the U.S.D.A. We therefore feel that the USDA should accept this responsibility and at the same we hope individuals concerned will cooperate without taking any undue advantage of such procedure.

You may count on this association, with its 5,000 active members, to give full support to H.R. 4217.

Sincerely yours,

ROY A. GILMAN, *Secretary.*

Mr. POAGE. I will also file a statement of the National Wool Growers Association in opposition to this bill, if there is no objection.
(The statement follows:)

NATIONAL WOOL GROWERS ASSOCIATION,
Salt Lake City, Utah, July 30, 1963.

Re H.R. 4217.

Hon. W. R. POAGE,
House Office Building, Washington, D.C.

DEAR MR. POAGE: I will appreciate it if you will include this letter in the record of the July 31 hearings before your Livestock and Feed Grains Subcommittee on H.R. 4217, to provide full indemnities for sheep slaughtered in connection with the scrapie eradication program.

The National Wool Growers Association is composed of 19 affiliated State organizations in an area where over 70 percent of the Nation's sheep, lambs, and wool are produced. We strongly support the present slaughter program of the U.S. Department of Agriculture to control and eliminate scrapie in sheep. We also fully support the program of indemnity payments to sheepmen who are forced to have their flocks slaughtered. From fiscal year 1953 through 1962 the

Federal Government has made indemnity payments under this program of \$1,627,408 in 44 States. Also, 30 State Governments have joined in making indemnity payments during this period in the amount of \$1,029,623.

We feel that under the terms of H.R. 4217 a State's interest and incentive to cooperate in making indemnity payments under this program could be substantially reduced. Certainly this is logical if a State knew that the Federal Government was responsible for full indemnification. Also, a State not participating in indemnity payments would not take the same interest in the eradication program as one participating financially.

Furthermore, the terms of the bill could require retroactive payments since the inception of the slaughter program 10 years ago. There could be disputes as to whether an owner had been fully indemnified through past payments. This could also create considerable confusion and work for the Federal Government in tracking down records of past payments, number of sheep slaughtered, etc. In flocks where one or two head were involved and owned by minors, such as 4-H Club members, it could be especially troublesome.

While we again pledge our full endorsement to the present slaughter and indemnification program, we feel that H.R. 4217 is not necessary and, further, as presently worded could shift a considerable financial burden from the States to the Federal Government, could result in many claims for further payments on sheep slaughtered since the inception of the program and could cause endless redtape and confusion for the Federal Government.

Sincerely yours,

EDWIN E. MARSH, *Executive Secretary.*

Mr. BETTS. In view of your being pressed for time I simply want to say on behalf of some of my constituents who represent a large segment of sheep raisers who are vitally interested in this bill, at their suggestion I introduced this bill and they are in the room today. I think they are represented largely by Mr. John Canestraight, an attorney from Columbia, Mo., who was the legal representative for the group and if it is agreeable to the committee I am going to ask him to present a statement to the committee at this time and call the other witnesses, the names of whom I have left with the chairman and I want to thank you again.

Mr. POAGE. I understand your situation and we appreciate that. We will be glad to have Mr. Canestraight appear and present such witnesses as he would care to.

STATEMENT OF JOHN CANESTRAIGHT, ATTORNEY AT LAW, COLUMBIA, MO.

Mr. CANESTRAIGHT. Thank you, Mr. Chairman. I have observed the rules of the committee with regard to copies of the statement of the various witnesses. Thirty copies of each statement will be filed with the clerk as the various witnesses testify.

My name is John Canestraight and I am a lawyer with offices at suite 317, Crum Building, Columbia, Mo. That is the congressional district geographically of Mr. Ichord.

We are appearing today as proponents of H.R. 4217. This bill merely authorizes the Secretary of Agriculture to pay full indemnity to the owners of sheep which have been or will in the future be slaughtered under the program for the eradication of scrapie in sheep. Scrapie is a fatal disease to sheep. First, let me say that we are not here to make a raid on the Federal Treasury, but we are here to attempt to secure a fair indemnity under the program whereby owners of sheep that may be affected by scrapie are treated differently than are owners of other types of livestock that are slaughtered under a Federal program.

It is true that the amounts of the indemnity paid generally as to animals that are affected with a contagious or infectious disease under a slaughter program are paid by the Federal Government from one-third to one-half of the appraisal value of the animal. H.R. 4217 seeks 100 percent indemnity in those cases where the various States do not pay an indemnity or to make up the difference when the contribution of the State is less than 50 percent. We believe that we are entitled to 100 percent indemnity for the reason that the Federal slaughter program with reference to scrapie in sheep is based upon the slaughter of absolutely healthy sheep that have no disease whatever and based on the evidence presently available will probably never have the disease of scrapie, while the brucellosis and tuberculosis program only involve the slaughter of animals that have such a disease.

Historically and traditionally the Federal Government and the various States have been permitted to slaughter animals that have an infectious or contagious disease. In fact, at 21 United States Code Annotated, section 114(a), the Secretary was authorized to slaughter animals having an infectious or contagious disease. After scrapie was first discovered in this country, the U.S. Department of Agriculture came to a hasty conclusion that the way to control the disease was to not only slaughter the animal that actually had the disease, but to slaughter every flock with which such animal had ever had any contact. This might involve four, five, or six different flocks and hundreds of animals. The Department then came to the Congress and obtained legislation which specifically permitted the Secretary to eradicate the disease of scrapie. This is a clear indication that the Secretary felt that his authority under a statute permitting slaughter of animals with an infectious or contagious disease was not broad enough with reference to scrapie simply because at that time and to date there has been no showing whatever that scrapie is either infections or contagious. Frankly, we do not know why the U.S. Department of Agriculture has embarked upon a slaughter program so broad that the slightest association of an affected animal with other animals will cause the slaughter of the entire flock with which such animal is associated and any other flocks with which such affected animal has been associated for a period of 42 months prior to the diagnosis of the disease. More than \$3 million of funds have been poured into this program and more than 50,000 sheep have been slaughtered under the program. The program has been manifestly unsuccessful.

In order to justify the drastic slaughter program, the Department takes the position that the cause of the disease must be a virus. However, it is admitted by all that little is known about the disease and that if it is a virus it lives where other like viruses would be destroyed such as by boiling and chemical treatment and the virus, if it be a virus, has not been seen, photographed, cultivated artificially, or shown to exist in any manner whatever. In short, the Department in a state of near hysteria came to the conclusion that the disease might be infectious or contagious and after assuming this conclusion, assumed that it probably was a virus and that the only thing to do is to slaughter all of the animals with which the affected sheep had been associated.

And they have done a good job.

We would be the first to agree that any sheep that has the classic symptoms of the disease of scrapie ought to be destroyed forthwith

and we have no argument whatever with the present indemnity program. We know that no sheep affected by this disease is going to recover but rather that it is going to die a rather horrible death. There is considerable evidence that the origin of scrapie may be a problem of genetics in which the genes form a chain that creates either a weakness in a family or strain or a toxic substance that brings on the disease. We shall have a witness to testify in that area. In fact, our witnesses will testify that even if scrapie were contagious, 90 percent of the remainder of the flock would be resistant to and probably would not contract the disease. However, our mission here is not to bandy around various theories as to the causes of the disease, because no one knows now the cause of the disease and whether or not it be contagious or infectious. However, our mission is until remedial legislation to repeal the scrapie statute can be enacted, we need H.R. 4217 to provide for indemnity for the slaughter of absolutely healthy animals so that the sheep breeders who have their flocks wiped out under this program can be indemnified at the appraisal value for the slaughter of their health sheep. We believe that only fair play in the protection of this property right would dictate passage of this legislation on that basis. Other witnesses present here now will be able to give this committee examples within their own experiences and with supporting data of entire breeders being wiped out of business under this program without adequate compensation for the taking of their property.

Mr. Chairman, that concludes my statement. I thank you for the courtesy extended me this morning.

Mr. POAGE. I will request the members of the committee if we may forego the usual procedure and withhold our questions until we have had all these witnesses, because we are not going to get through if we start questioning these witnesses in detail at this time. I would like to question Mr. Canestraight myself for about a half hour.

Mr. CANESTRAIGHT. Our next witness will be Mr. Pearson L. Linn.

Mr. POAGE. Mr. Linn, we will be glad to hear you.

STATEMENT OF PEARSON L. LINN, PRESIDENT OF THE NATIONAL SHEEP ASSOCIATION

Mr. LINN. My name is Pearson L. Linn, from Bucyrus, Ohio. I live on the same farm of 340 acres where I was born 54 years ago. I began farming and sheep breeding 34 years ago on this same farm. I have been president of the National Suffolk Sheep Association, one of the two largest purebred sheep associations on this continent, for the past 6 years.

At the outset I wish to thank the subcommittee on behalf of our association for this opportunity to present our views on H.R. 4217.

THE PURPOSE OF H.R. 4217

We feel that most people will agree that the Government should adequately compensate at true value for all sound, healthy and useful property which it destroys without provable cause that such destruction is based upon some evidence or proof that there is in fact something the matter with that which is being destroyed. If this is not so, then it would appear that the point has been reached where the Government may, and perhaps does, destroy the property of its

citizens without either reason or compensation. This is the fundamental and basic issue respecting H.R. 4217. The qualitative nature of Department scrapie policies is not at issue in H.R. 4217.

Unfortunately, as we begin the second decade wherein under the scrapie program the Government continues to destroy sound, healthy, and perfectly useful animals without there being any proof or evidence that scrapie or any other disease exists, has existed, or will in fact ever exist in the animals being destroyed, it seems necessary that remedial action be taken to protect the victims. This is due to (1) the fact that such destruction is, and has been, taking place on a colossal and indiscriminate basis with the owners being compensated mostly at little more than one-half true values; and ranging from zero to 100 percent, and (2) the fact the accumulated evidence of the past decade demonstrates that the States, with few exceptions, have not and do not intend or expect to accept responsibility for any indemnity payments at this or any other time.

The victim has no practical or adequate remedy. The victim is simply the victim of a situation over which he has no control and wherein virtually everything is weighted against him, without remedial or less ruinous alternatives being available. This unique situation is due to the fact the Government bases its program and its quarantine upon a so-called incubation period—an incubation period which has never been proven to exist—of up to 3½ years, thus forcing the victim of this situation to either (1) accept compensation as offered regardless as to how ridiculous and inequitable it might be, but depending mostly upon his place of abode, or (2) face probable bankruptcy and total personal ruin under an unreasonable and unrealistic 3½-year quarantine.

Many examples could be given of the type of situations which are now virtually destroying the sheep industry under the scrapie slaughter program. It will suffice to cite just one example—the one situation now currently taking place in Illinois and referred to in the current issue of the Shepherd magazine as “The Skies Fall on Illinois”; and “Nations Wonder Why.”

(The articles in the national journal of sheep production and management—The Shepherd, July 1963—may be found in the files of the committee.)

Mr. LINN. In this situation, about 1,500 healthy sheep having a probable value of more than \$200,000 are to be slaughtered under this program without there being any evidence that they will ever be affected by a disease. In addition, another 1,500 or more healthy sheep having a similar value of more than \$200,000 will be destroyed in the hands of other sheep breeders with there also being no proof or evidence that they likewise will ever be affected by a disease, scrapie or otherwise.

Mr. Alvin Helms, Belleville, Ill., will follow later in a presentation before this subcommittee. He will cite his personal experience. I wish to state that, beyond question, Mr. Helms possessed one of the finest, if not the world's finest, Cheviot flocks.

In conclusion, we believe it worthy of note that the 1958 USDA study group itself, although sponsored by the U.S. Department of Agriculture, made as its “No. 1” recommendation that sheepmen be paid “full actual value less the salvage value of the sheep slaughtered.”

However, it has been up to my association to encourage and push the passage of H.R. 4217 to bring this about. Gentlemen, the

Suffolk is an old, proud, and renowned breed of sheep. On behalf of our breeders, we urge that you favorably report out H.R. 4217. Thank you.

Mr. POAGE. Thank you, Mr. Linn.

Next we will hear from Mr. Helms.

STATEMENT OF ALVIN L. HELMS, BELLEVILLE, ILL.

Mr. HELMS. My name is Alvin L. Helms of Belleville, Ill. I started breeding a Cheviot flock in a 4-H Club, December 1, 1919, as a project. I bred and produced and showed this flock of Cheviot at the leading shows and expositions in the United States and Canada. This flock produced the winning exhibitors flock at the Great Illinois State Fair from 1935 to 1961. Also the best 5 head at the Royal Winter Fair in 1960. The winning get of sire at the Southwestern Fat Stock Show at Fort Worth, Tex., of all breeds many times.

Since 1919, I have continuously bred, produced, and showed the Cheviot breed of sheep and can state that certain of the purebred sheep I have sold have brought the highest price this type of sheep have ever brought at a public auction. On many occasions, I have acted as a judge at various shows.

In August 1958, I sold a ram Cheviot off my Belleville farm to an Oregon breeder and in August 1959, it was alleged that this sheep had died in Oregon of scrapie. In August 1959, the USDA officials quarantined my sheep on the farm and kept it quarantined for 2½ years. During this period, I was subjected to constant USDA inspections. I could not sell, show or move any sheep off my farm. Not a single sheep of the 273 showed any sign of scrapie during this 2½ year period. Yet, the Federal Government slaughtered the entire flock and wiped me out of the sheep business. It had taken me a lifetime to build this flock and I had to start all over again at the age of 56 years. I sustained a \$35,000 cash loss.

If ever a flock of healthy animals were slaughtered, this was it.

My story is typical of many others. I must say that if this is public policy, then at the very least there should be 100 percent compensation for the taking of such property.

Mr. POAGE. Thank you very much, Mr. Helms.

Mr. HELMS. Mr. Chairman, I want to thank you for the time you have extended me.

Mr. POAGE. Our next witness will be Mr. Fred B. Hutt.

STATEMENT OF FRED B. HUTT, PROFESSOR OF ANIMAL GENETICS, CORNELL UNIVERSITY

Mr. HUTT. My name is Fred B. Hutt, and I am professor of animal genetics in the New York State College of Agriculture at Cornell University, Ithaca, N.Y. I am speaking as a geneticist at the request of Mr. Pearson Linn, president of the National Suffolk Sheep Association.

From all the scientific evidence I have seen to date, I consider that scrapie results from genetic susceptibility to that disease, and that the condition may prove to be a simple, recessive, autosomal character.

I. EVIDENCE THAT SCRAPIE IS GENETIC IN ORIGIN

There are two independent kinds of evidence, as follows:

(1) In this country scrapie has been confined almost exclusively to one breed: Suffolks. According to the report of the USDA's Agricultural Research Service of June 1960, among 158 cases diagnosed to that date as scrapie, 149, or 94 percent, were in Suffolks.

Differences among breeds in susceptibility to a disease constitute *prima facie* evidence that that disease is influenced by heredity. Each breed represents a different collection of genes, and differences among breeds are attributable to differences with respect to their genes. While the Suffolks are one of the most numerous breeds in the country, they do not constitute 94 percent of the sheep population, or anything like it. Accordingly the fact that most of the scrapie occurs in Suffolks is evidence of a gene or genes prevalent in Suffolk bloodlines that is found rarely in other breeds, or not at all.

(2) From extensive studies of many flocks under his supervision in England, Dr. H. B. Parry of Oxford has concluded that scrapie is caused by a single, autosomal, recessive gene in the homozygous state. The point is more difficult to establish than it would be in mice or rabbits because—

(a) Sheep reproduce slowly; and

(b) Scrapie is seldom manifested under 2 years of age, and even by 4½ years only about 90 percent of those susceptible will have manifested the disease.

Parry has been able to identify heterozygotes (healthy sheep which carry the causative gene) by their having either affected progeny or an affected parent. Designating the gene for susceptibility as *s*, the three possible genotypes are:

SS: homozygous dominant; no scrapie, producing no affected progeny.

Ss: heterozygous; unaffected, but carrying the gene, and able to have progeny with scrapie.

ss: homozygous recessive; develops scrapie, but can have progeny before doing so.

His extensive data for matings involving in different combinations sheep believed to have one or another of these genotypes, were published in 1962. (Heredity, 17: 75–105). They were submitted to statistical tests of their significance by Draper and Parry (Nature 195: 670–672). These showed that the data conform to results expected for a unifactorial genetic character, and moreover that the distribution of scrapie in the different families was not uniform, hence did not fit the pattern expected if it were transmitted from one sheep to another by contact.

II. LACK OF EVIDENCE FOR SPREAD BY CONTACT

Data of Greig from the Moredun Institute, near Edinburgh, Scotland, are sometimes cited as evidence that the disease is spread by contact. Unfortunately, Greig had no control sheep, hence his observations were worthless. On this point, Dr. J. T. Stamp (Greig's successor at Moredun) agreed with me when I visited his laboratory in September 1961.

No one denies that scrapie can be transmitted artificially from one sheep to another, but the fact remains that—up to 1962, at least—no incontrovertible evidence has been adduced that the disease is spread from one live sheep to another in the field.

III. PRESENT STATUS OF ETIOLOGY OF SCRAPIE

Those pathologists who hold that scrapie is caused by a virus concede that any such virus must be different from all others known to date. It does not cause the usual formation of antibodies, is resistant even to boiling, and has an "incubation period" of anything up to 4 years.

Parry considers that the susceptible genotype produces a toxin, which he has referred to as a provirus, and which can reproduce itself. This would explain the artificial inoculation of scrapie. To this geneticist, it would seem that while genetic susceptibility has been clearly demonstrated, much further research will be necessary before the nature of the toxin or pathogen be known, and the etiology of scrapie fully understood.

I have visited Parry at Oxford and Stamp at Moredun in 1961. I am convinced that both are sincerely trying to elucidate the causes of scrapie, but that—like cancer—the problem is not one amenable to quick solution.

IV. CONTROL OF SCRAPIE

As no shred of evidence has been adduced to show that scrapie is spread from one sheep to another, attempts to eradicate the disease by slaughter—which are based on the unproved assumption that it is thus spread—are both unwarranted and futile. The more likely way to reduce the incidence of scrapie is to destroy affected animals, to market all their progeny early, so that none will be used for breeding, and not to use for further breeding any rams or ewes that have produced affected progeny or any of the unaffected sheep from such parents.

In short, the sheep breeders should eliminate the animals proven to carry the gene and not risk breeding from animals likely to do so. Parry declares this type of control to be effective in reducing the incidence of the disease in flocks under his supervision.

Draper and Parry (*loc. cit.*) conclude statistical tests of their data with the following statement:

In the dissemination of scrapie among sheep under natural conditions the hereditary component is paramount and the role of contagion, even if it exists, for which we can find no evidence is extremely small.

Even if the disease were spread by contact, it is clear that the proportion of susceptible animals is very small, and that the resistant sheep, the biologically fit animals must exceed 90 percent. These are the animals that should be multiplied, but under the present slaughter program, they would be destroyed.

I thank you.

Mr. POAGE. Thank you very much. We have been delighted to hear you, Dr. Hutt.

Now we will hear from Dr. King.

STATEMENT OF THOMAS L. KING, WHITEHOUSE STATION, N.J.

Mr. KING. My name is Thomas L. King. I operate a sheep farm at Whitehouse Station, N.J. I am speaking as a sheep breeder and as a representative of the American Cheviot Sheep Society of which I have been either president or director for 10 years.

In the 10 years of the scrapie control program, only 200 of the Nation's 30 million sheep have fallen ill with scrapie. Thus, the incidence of scrapie is at the rate of 1 case per year per 1,500,000 sheep.

The Department of Agriculture publication ARS 91-22, June 1960 (pp. 27 and 32), tells us that in 88 outbreaks of scrapie, only 158 sheep were victims of the disease. Thus, each "outbreak" averages less than two diseased sheep per outbreak. Also, when we examine the data (ibid. p. 27) for the number of outbreaks per year, we find no evidence of a trend—scrapie is neither increasing nor decreasing, in spite of the wholesale slaughter of sheep which we will discuss later.

Furthermore, the disease has been known in England for more than 200 years, but it has not been considered sufficiently significant to warrant a national control program—a fact that is especially pertinent because their sheep population is twice as large as ours and far more important to their economy. Indeed, the research being pursued there is financed, not by British money, but by funds supplied by the United States.

Scrapie, then, is not important to the sheep breeder. His losses due to the disease are so small as to be insignificant.

However, the scrapie control program in 10 years has slaughtered 60,952 sheep, of which 60,752 were perfectly well and healthy. Many of these were animals produced through careful breeding programs designed by experts to improve the quality and productivity of the Nation's sheep flocks.

Thus, we have shown that the scrapie control program cannot have as its purpose the solution of a problem for the American sheep industry. It does not have a significant problem because of scrapie, and the industry therefore would derive no significant benefits from the program, even if it were to be successful.

Its purpose must be some public purpose which is beyond our comprehension. It follows, then, that the losses suffered by the sheepmen who fall victim to the program should be borne in full from public funds. Justice and equity support this view.

Mr. POAGE. Than you very much, Mr. King.

We next have Dr. Bendix.

STATEMENT OF DR. W. L. BENDIX, STATE VETERINARIAN, STATE OF VIRGINIA

Mr. BENDIX. Mr. Chairman, my name is W. L. Bendix. I am the State veterinarian of the State of Virginia, located at Richmond, and I am responsible for administering and enforcing the animal disease control laws of the State of Virginia. I am a graduate of the Ontario Veterinary College and have been closely involved in the field of the diseases of animals most of my professional life.

The representatives of the sheep industry of the State of Virginia requested that I appear here today. I understand the position of the association and, of course, I know that the U.S. Department of

Agriculture has a position. As the State veterinarian of the State of Virginia I feel that I have a certain position to maintain and strongly feel that any pertinent testimony that I might have on H.R. 4217 and the various positions of these two groups may best be brought out by the question-and-answer method.

Mr. Chairman, I was not aware of this hearing until about noon Monday when I was on the verge of leaving for New York and I have had no time to prepare a formal statement other than this last night when I arrived here in Washington, but Mr. Canestraight, the counsel for the National Suffolk Association has given me a list of three or four questions that I would like to have the opportunity to read into the record. They are very short.

Mr. POAGE. You may.

Mr. BENDIX. First: "Is scrapie a real problem to the sheep industry?"

My answer to that is this: In my opinion it is not because as shown in the testimony this morning the known cases in the United States in the last dozen years represent an extremely small percentage and it has shown no indication of being in any way explosive in character. In Virginia over the last 10 years we have had three or four cases.

The second question: "Does your State pay an indemnity under a scrapie program?"

The answer to that is "No."

The next question: "Have you asked your legislature for funds for such a program?"

Again the answer is "No."

The next question is "Why not?"

The answer to that is: "When I go to my legislature to ask for public funds to support an eradication program I have to present them with some facts regarding the nature of the disease, its importance either to our livestock economy or to public health if any, and I have to be in a position to present them with a logical program based on known facts and I have to also be in a position to assure them to the best of my professional knowledge the program will work."

In scrapie I am not in a position to furnish any of this information. We can neither increase resistance to scrapie nor can we decrease exposure. Those are the two classic ways of eliminating disease in livestock; except, of course, by wholesale slaughter. Well, when you attempt a program of wholesale slaughter you should be in a position to say that this is a dangerous condition, it is explosive and it will seriously cripple the industry that has the problem. Well, none of these facts are present in scrapie nor is there any indication that they would be.

The next question is: "In your experience what do you think of the USDA's slaughter program as far as scrapie in sheep is concerned?"

Well, I am on the record before the Congress more than once in reply to this question and also before the Department of Agriculture. In my opinion, the Department has a program that is too drastic in the light of the facts or the potential danger and I have always maintained that the program should be modified until such time as our research people can give us some of the answers we need to eradicate this condition from the United States with the classic means that we have always used in programs of this kind.

The next and last question: "Do you feel until the law is changed relative to the power of the Secretary relating to scrapie that H.R. 4217 is sound legislation?"

My answer to that basically is "Yes." I would like to on behalf of my sheep people support this legislation and urge that it be favorably considered by this committee. If we are going to maintain a drastic program with regard to this disease in the future I feel that the people who lose their capital investment and sometimes a lifetime's work in breeding a flock should be compensated at the full value of the flock. When we know more about the disease and how to do the job in a manner that we are sure will eradicate it then I think scrapie can be placed in the same category as brucellosis or tuberculosis or other diseases, and each of us, the States, the Federal Government, and the owners may share in the cost of the eradication. That is the classic picture of animal disease control in the United States in the past.

I thank you for your kindness.

Mr. POAGE. Does that complete the list of proponents?

Mr. CANESTRAIGHT. Mr. Chairman, it does complete the testimony of proponents and I note we have stayed in the time limitations granted by the committee.

Mr. BETTS. Mr. Chairman, may I make one inquiry: In view of the fact that this was a limited hearing, is the record kept open for any length of time?

Mr. POAGE. We will keep the record open for the next week.

I want to at this time insert in the record certain telegrams in favor of the bill. Without objection, these telegrams will be inserted in the record.

(The telegrams follow:)

DES MOINES, IOWA, July 29, 1963.

CHARLES B. HOEVEN,
House Office Building, Washington, D.C.:

Regarding committee hearing bill H.R. 4217 the present sheep scrapie program has caused a devastating situation throughout segments of the Iowa sheep industry resulting in financial loss and destruction of stud flocks throughout the United States. The USDA is paramount in drafting and instituting this scrapie program. Unrealistic decision to condemn or place under surveillance or to give a clean bill of health to sheep and location have disrupted producer confidence in the program. H.R. 4217 would center the entire financial burden within USDA which would be the direct line of bringing the mechanics or guideline of this program before our Congressmen. We urge your support of H.R. 4217. Lethargy can only compound the situation.

DEWEY M. JONTZ, *Iowa State Sheep Association.*

HAMPTON, IOWA, July 29, 1963.

CHARLES B. HOEVEN,
New House Office Building, Washington, D.C.:

I am decidedly in favor of scrapie bill House rule 4217.

W. H. AZELTINE,
National Suffolk Director, Latimer, Iowa.

ST. ANSGAR, IOWA, July 29, 1963.

Representative CHARLES B. HOEVEN,
Washington, D.C.:

Urge to pass scrapie bill H.R. 4217.

IOWA SUFFOLK SHEEP ASSOCIATION.

SHELDON, IOWA, July 30, 1963.

CHARLES B. HOEVEN,
New House Office Building, Washington, D.C.:
Vote for scrapie bill H.R. 4217.

LAMBERT J. ROETMAN HOSPERS.
HOMER DEBOER, Orange City.

WAUKEGAN, ILL., July 28, 1963.

Mrs. CHRISTINE S. GALLAGHER,
Clerk, House Committee on Agriculture,
House of Representatives, Washington, D.C.:

The National Society of Live Stock Record Associations at its annual meeting unanimously approved passage of H.R. 4217. This society representing the pure bred livestock registry associations and their hundreds of thousands of members strongly support the provision of this bill. No diseases radication program will ever succeed without full indemnification after slaughter. Sorry unable to be present at the hearing on Wednesday.

ALLEN C. ATLASON,
Secretary, National Society Live tock Record Associations.

Mr. POAGE. I know that we must hear the opponents. I know some of the members wanted to be sure to ask some of these proponents some questions. We will try to limit it as much as we can.

However, it seems to me the proponents of the bill have raised a very serious prima facie case against the present legislation regarding scrapies and have seriously challenged the validity of the whole program that we are conducting. I would say without hesitation that you have raised some very serious doubts for me. I want to hear the other side. I just think we ought to try to get on the track here and be sure we act in accordance with the existing legislation. I know you don't want to put your hand in the Government's pocket but all you do with this bill is to come here and ask the Government to give a great deal different form of compensation for the eradication of animals under this program than under other programs. Why don't you attack the program? You did attack it, I thought, very effectively. Why do you come here and condone the program and say, "Pay us differently?"

We do do this sort of thing, we do eradicate perfectly healthy animals in other programs. We do it in foot-and-mouth disease and, frankly, I have been critical of some of the extremes to which the Department went in foot-and-mouth disease some 10 years ago because I think the program was carried to illogical extremes. It appears that may have happened here.

Certainly we do eradicate perfectly healthy animals in other programs. This is not unique in this respect. I can't believe for one minute that we could have the Federal Government pay the full value of sheep and not pay full value for other animals. I think your legislation shows on its face it is intended to be a raid on the Federal Treasury and you say, "You are going to pay this even if the State doesn't pay it." What inducement is there for any State to make a payment under your legislation? Does anybody have any reason they could give for thinking that any State would make the slightest payment if we passed your legislation?

Mr. CANESTRAIGHT. Mr. Chairman, certainly your statement has a great deal of validity and much must be said for it.

I might say that in the area of hoof and mouth, the program of the USDA was in the eradication program to slaughter healthy animals.

However, they changed that policy and now only slaughter those who actually have the disease.

Scrapie is the only disease in any livestock in any Federal program involved in the slaughter of healthy animals. They have not changed.

Mr. POAGE. Tell me when they changed it. Frankly, I don't know.

Mr. CANESTRAIGHT. Some of my people have informed me that originally with reference to hoof-and-mouth disease they slaughtered healthy animals but they don't do it now.

Mr. POAGE. When did they stop slaughtering them? Perhaps that will be brought out in their testimony before this committee.

Mr. CANESTRAIGHT. Mr. Chairman, you are right, we have made serious charges against this program. Foot-and-mouth disease is a proven infectious, contagious disease. That is the difference between this disease and that disease.

Mr. POAGE. I see the difference between the diseases. It seems to me that what you have proven here or what you are trying basically to prove, at least, is that this disease is substantially the same thing as dwarfism in cattle. Is that not about the same thing that you are showing?

Mr. CANESTRAIGHT. We are actually showing, sir, that when you slaughter healthy animals, you feel they have been exposed to something which is contagious. Here there is no showing, no evidence existing, that we have a contagious disease.

Mr. POAGE. May I ask Dr. Hutt if the burden of his evidence is not that this is something comparable to dwarfism in cattle.

Dr. HUTT. I believe that is comparable insofar as those are dependent upon heredity. The basis for scrapie is not precisely the same as the genetic basis for dwarfism.

Mr. POAGE. They are different manifestations, I realize that.

Dr. HUTT. You are quite right, both are hereditary.

May I say, sir, that in my opinion, one difference between a scrapie program and the foot-and-mouth program is that the healthy animal in the herd exposed to foot-and-mouth disease has been demonstrated to be a potential character spreader. In the case of scrapie, this has not been demonstrated.

Mr. POAGE. I accept that, Doctor, but of course the Department's whole theory is or was—I do not know what it is this morning, but I know it was at the time this program was adopted—that this was the way to eliminate outbreaks of scrapie. They make the same claim in hoof-and-mouth disease. I challenged 10 years ago, and I still challenge, what they have done in foot-and-mouth disease. I think they have deliberately destroyed much of value in the United States that they did not need to destroy in foot-and-mouth disease.

As I have said before, and I say again, I think their dealings with the Louisiana cattle was a perfect outrage to all justice in the United States, the bringing in and the shipping out of the cattle in Louisiana from Mexico. To my mind, there was not the slightest justification for what they did. I said that before and I want it repeated.

It seems to me they are probably engaging in the same kind of tyrannical procedure here that they did in foot-and-mouth, but they did it on the basis that it was their opinion that that was the way to get rid of the disease. Their claim in this case was that that was the way to get rid of it.

If that is in error—and you seem to make a very good case that it is in error—why is not your proper procedure to challenge their decisions

and determinations and findings and the scientific basis for their present procedure, rather than to come here and ask us to have the Federal Government enter into a contest seeing how much the Federal Government can spend on these programs? You are not going to deter the Federal Government by making them expensive. The Federal Government can engage in some of the wildest expenditures that possibly can be imagined, and you will not deter any program by making it expensive, but from the standpoint of good government, I would urge you not to use that as a method of trying to bring about the reform you need.

Mr. CANESTRAIGHT. Mr. Chairman, for more than 10 long years we tried to convince these people to take a conservative approach to this thing. Let's destroy the whole family where there is an infected sheep. All right, let's quarantine these animals for a couple of years. We will tie this breeder up, tie his farm up so he cannot move anything in or out.

Mr. Helms testified they tied him up for 2½ years.

Mr. POAGE. You say they killed his sheep. Did they keep those sheep alive and have you feed them 2½ years and then kill them?

Mr. CANESTRAIGHT. Yes, sir. Not one of those sheep developed scrapie during that observation period, and yet they slaughtered them. It took him a lifetime to build that flock, a whole lifetime. He is one of the outstanding breeders in America.

Now you ask, Why don't we challenge their program? We have challenged it. We have challenged it with them privately. We have challenged them with the evidence. I think they have themselves out on a limb engaging in a slaughter program, and they cannot back up.

Mr. POAGE. You have not come here with any challenge.

Mr. CANESTRAIGHT. No, sir. I tell you why. These sheep people have dragged their feet. I told them they have dragged their feet, and their remedy is to take the power away from the Secretary to treat scrapie per se in a slaughter program. Let them slaughter infected and contagious animals. But we have not been able to convince them. These people have dragged their feet. Finally they have gotten on their feet and it looks as if they are going to move.

Mr. Betts was kind enough to introduce this bill for Mr. Linn, the president of the association, as a stopgap measure only. It is the intention of these people to introduce legislation at the next session and introduce it earlier, to repeal the power of the Secretary to treat scrapie specifically, and let him rely on the old statute relating to infectious and contagious diseases.

In the meantime, we have this problem. We have people like Mr. Helms who are going to be wiped out. They are going to be put out of business. Until we can get this legislation enacted, we hope at the next session—I know it is rather optimistic the first time around, as a practical matter—we have these independent businessmen sitting out here on these farms who are breeders. We feel that at least if these people are to engage in this wholesale slaughter program, these people ought at least to give the appraisal value of these animals so maybe they can start over again, and not 50 percent.

We have no argument at all and we do not think we are entitled to one nickel from the Federal Government or the State government as to any sheep that actually have this disease. That is just a raid

on the Treasury of this Government and of the particular State government. Anybody takes a chance in business or if he practices law, as I do. You can make money or lose money. You are going to have unfortunate cases and unfortunate diseases in animals. Those are the kinds of losses you ought to take if you are going to play the game.

They are willing to take those losses. But this theory of slaughter is the easy way out. Just kill everything in sight. These people are wrong, Mr. Chairman. The people I represent are sincere, and they know they are right. Not a man here is receiving a dime to come here and testify today. We intend to put in legislation to repeal the power of the Secretary. We cannot convince these people. We can say, "Look, why don't you back up and take a look at this thing?" They will not listen to it.

For more than 10 years we have tried to convince them. We are going to have to come to the Congress and take the power away from that man over there in the U.S. Department of Agriculture and let him rely on his general powers as to infected animals.

Your remarks are to the point. I believe you brought this issue up very well, Mr. Chairman. Once again we thank you for the opportunity to appear as proponents.

Mr. POAGE. We thank you for bringing the serious problem to us. I think you made a good case that you have a very serious problem. I think this committee needs to go into considerable detail.

Mr. LINN. I would like to make this comment. First, I want to call attention to the case mentioned by Mr. Helms, of feeding livestock for 2½ years and nothing developed. In that case they would not kill any livestock under the foot-and-mouth disease program.

The other thing is the matter of policy. Two years ago we filed statements before, I believe, this same committee, and I forget the bill, in which our association, through a statement of my own and also of our attorney, questioned the advisability of writing a law at that time giving the Secretary of Agriculture the extreme power we thought he was given in the matter of imports, because it also had to deal with the scrapie program.

Our funds being limited, we felt we had explored all we could in that area. Since we could not convince the Department or get proper relief, the only thing we could do was to protect our members from financial ruination coming about through the program. That is why we have taken the approach that we have.

Mr. POAGE. We have still another witness or two this morning to speak in behalf of this measure. I did not have them listed as proponents.

Mr. MORRISON, did you wish to speak in behalf of this program?

Mr. MORRISON. Mr. Chairman, I am sorry I did not understand the procedure this morning. This is the first time I have been here.

Mr. POAGE. That is all right.

STATEMENT OF WILLIAM L. MORRISON, STAUNTON, VA.

Mr. MORRISON. I am William L. Morrison, from Staunton, Va. I am a livestock raiser.

Very briefly, I can tell you from a different standpoint a few things. I do not have a prepared statement.

I have in my hand a copy of the Department of Agriculture's appraisal of my 70 head of sheep in the amount of \$15,265, for which I was paid \$5,249 for having 3 sick sheep in my flock.

The ram that supposedly bred those three sick sheep was rented from a neighbor of mine, and even though he had died a year previous to my episode, the Department felt it was necessary to go over and appraise my neighbor's flock of 86 head of sheep to the tune of \$19,895, and paid him \$6,449, and he did not have a scrapie sheep on his place.

Then they said to me, "Morrison, have you sold any sheep to anyone else?" I said, "Yes, I sold a ram to another neighbor 4 miles from here, but he has no scrapie." "Let's go look at his sheep." So, they went out and they appraised 317 head of grade sheep for \$24,480, and gave him a check for \$9,750, and he did not have a sign of scrapie in his flock.

That means, Mr. Chairman, 468 sheep went to slaughter with a value placed by the Federal Government, Department of Agriculture, in the amount of \$59,640, for which the three of us received a total amount of \$21,448, because of 3 sick sheep that were found in my flock.

I do not know anything about foot-and-mouth disease. I do not know too much about brucellosis or TB, but I do know that a human being can catch a certain disease from brucellosis and TB, but nobody has ever told me yet that scrapie will bring about any harm to a human being.

That is my statement. Thank you for letting me speak.

Mr. POAGE. Thank you very much, Mr. Morrison.

Mr. Ashby?

STATEMENT OF WOODROW W. ASHBY, CHESTERFIELD, VA.

Mr. ASHBY. Mr. Chairman, I am W. W. Ashby, from Chesterfield, Va.

I would support 100 percent what Mr. Morrison just said. I had a flock of sheep, a little unusual sheep. This thing came up, and they came in and shot them all and put me completely out of the sheep business.

I thank you.

Mr. POAGE. Thank you, Mr. Ashby.

I have the name of Mr. Stan Gates, of Philadelphia.

Is Mr. Gates here?

Mr. GATES. Yes, sir.

Mr. POAGE. You may proceed.

STATEMENT OF STAN GATES, SECRETARY-TREASURER, AMERICAN CHEVIOT SHEEP ASSOCIATION, PHILADELPHIA, PA.

Mr. GATES. Mr. Chairman, I just want to say I go on record with the rest of the association in favor of this bill.

Mr. POAGE. Thank you, sir.

Is there anyone else here to testify in favor of this bill? We do not want to cut anybody off. We want you to say so now, if you wish to appear.

I have been taking up the time. It may be some of the members wish to question the proponents before we pass to the Department.

Mr. HARVEY. Have we a representative from the Department here?

Mr. POAGE. Yes.

Mr. HARVEY. Would it not be a good idea to let them testify and then we shall ask questions.

Mr. POAGE. All right, we will do that.

I Think now we will call the Department witnesses. I do not know what their position is. We have Dr. Anderson and Mr. Mostow.

STATEMENT OF DR. R. J. ANDERSON, DEPUTY ADMINISTRATOR, AGRICULTURAL RESEARCH SERVICE, U.S. DEPARTMENT OF AGRICULTURE; ACCOMPANIED BY ELMER MOSTOW, OFFICE OF THE GENERAL COUNSEL, AND DR. JAMES HOURRIGAN, ANIMAL DISEASE ERADICATION DIVISION, AGRICULTURAL RESEARCH SERVICE.

Dr. ANDERSON. Mr. Chairman, I am R. J. Anderson, Deputy Administrator of the Agricultural Research Service.

On my left is Mr. Elmer Mostow, Office of the General Counsel; and to my right, Dr. James Hourrigan, of the Animal Disease Eradication Division of the ARS.

We do not have an official position on this bill. We do have comment on the Department's policies relating to the payment of indemnities, which I shall be glad to present. Also, we would be happy to answer any questions the committee may care to ask.

Mr. POAGE. We shall be glad to hear from you.

Dr. ANDERSON. The Department cooperates with the various States in programs of livestock disease eradication according to mutually agreed-to procedures. Some of the programs contain provision for the payment of indemnities to owners for infected or exposed animals destroyed.

Federal regulations provide for two kinds of payment in cooperation with the States. One, to pay not more than 50 percent of the expense of purchase, destruction, and disposition of animals and materials required to be destroyed. In the case of scrapie of sheep, Federal regulations provide for indemnity payment to owners of infected or exposed sheep destroyed not to exceed 50 percent of the difference between the appraised value and any salvage the owner may receive, whether or not the States participate in such payments. However, the States usually pay the other 50 percent.

Second, a feature of the Federal-State cooperative tuberculosis and brucellosis program provides for Federal indemnity payment to owners. Owners of reactors are paid not more than one-third of the difference between the appraised value and salvage received, not to exceed \$25 per grade and \$50 per purebred animal destroyed. Such payment for tuberculosis reactors are contingent upon the State's paying at least an equal amount. The owner in this instance would assume one-third of the loss, or more if the value of the animal exceeded the limitation of Federal and State payments.

The purpose of indemnity is to facilitate the immediate disposal of infected and exposed animals, thus breaking the chain of spread. We recognize that the owners in many cases experience losses associated

with the existence of the disease in his herd or flock that are not covered by indemnity. However, they have strong interest in establishing disease-free herds and flocks. We have found that with the two parties—Federal-State and the owner—each sharing in the cost, there is usually effective cooperation and support in carrying out our program procedures which are necessary to eliminate the disease. This prevents costly spread within the herd or flock or spread from herd to herd.

The long-established cooperative Federal-State arrangement where each shares in the total effort has proved to be very effective in livestock disease eradication in this country.

Mr. Chairman, I shall be glad to answer any questions.

Mr. POAGE. Thank you very much, Dr. Anderson.

Does either of your associates care to make a statement, or do you simply want to subject yourselves to questions?

Mr. MOSTOW. Mr. Chairman, I want to say the authority under which the Department operates is a cooperative, nonmandatory authority insofar as the indemnity program is concerned. Our quarantine requirements are interstate. The quarantine of the herds is local by the State government, and not by the Federal Government. We have no right to go in on a man's farm and take his sheep without the authority of the State. When the State requires the slaughter as a matter of law or where the farmer-owner of the animals agrees to have them slaughtered, this is the time when the Federal Government comes in and pays what its regulations says it will pay.

A great deal has been said here, I think, tending to say that this is our program, the Federal Government's program. It is a cooperative program, and we cannot get in on a man's farm unless the man lets us in or unless the State forces him to under State authority.

Mr. POAGE. Will you explain to us just how you have carried out this slaughter of sheep that we were told about here a while ago; such as Mr. Morrison's sheep in the Shenandoah Valley? How did you get on his farm?

Dr. ANDERSON. We worked out a cooperative arrangement with the State Department of Agriculture of Virginia, and the action that was taken in regard to that flock was done under State authority. The Federal Government did not move under its authority.

Mr. POAGE. You sent a Federal man and a State man along together? Is that how they got there?

Dr. ANDERSON. Yes, sir. The Federal man would go along with the State man or, in some cases, he would go as a deputized State official. In the case of Virginia, the Federal man went along with the State employee.

Mr. POAGE. Dr. Bendix, I believe you said you did not believe in this theory. How does it happen the State of Virginia cooperates with a program of that kind if you feel that it is far out of line scientifically, as you suggested?

Dr. BENDIX. In the case of the flocks in Virginia that were involved in this particular matter, when the diagnosis was made that there was scrapie in the flock or when we were advised that an animal had come from another flock in Virginia, we advised the owner and we advised the Federal Government representative assigned to Virginia, who cooperates with us in our cooperative program; that as far as

Virginia was concerned, there was nothing that we had been told that would justify wholesale slaughter of sheep in this manner; that we would require the owner to dispose of the infected animals, its immediate progeny, the sire and dam if they were available to us; but we also told the Department of Agriculture that they were perfectly free, if they so wished, to go with our inspectors to the owners and, if they could persuade the owner to accept on a voluntary basis the slaughter of his flock and he was willing to accept the Federal indemnity as sufficient compensation, we would offer no objection; that he would be in the position of any other person with a flock of sheep, as far as we were concerned.

Mr. POAGE. But you were not subjecting them to the slaughter?

Dr. BENDIX. No, sir.

Mr. POAGE. Now, Mr. Morrison, is that your understanding of what happened when they came to you?

Mr. MORRISON. Yes, but most of our sheep are sold across the border, and if I am to keep my sheep confined to my farm for the next year or 10 years and I cannot move them, I might as well cooperate and say, "Gentlemen, come take them." They cannot cross the border, sir.

Mr. POAGE. What about this neighbor who had a grade flock, to whom you sold the ram, and he had 300-and-some-odd sheep on which he placed a value of \$26,000, and they paid him \$9,000, I believe, and he did not have any scrapie in his herd? Why should he agree to have his herd killed?

Mr. MORRISON. Sir, I cannot answer that. All I know is, when you get the stigma of scrapie on you, it is supposed to be a really terrible thing. Get rid of it.

Mr. POAGE. Let us understand this a little better, because I do not understand it and I ask anybody who wants to, to explain it. If I understand it, there is no reason you cannot send those infected animals to the market and recover the salvage, whatever they will bring on the market. Is that not right? You can send a brucellosis cow to market.

Mr. MORRISON. No, sir, you cannot send an animal that has been designated as a scrapie animal to a local stockyard. The animal has to be loaded on a truck, sealed with a lock and key, and taken to some designated market—

Mr. POAGE. That is substantially the same as brucellosis there. But they are used for human consumption, are they not?

Mr. MORRISON. Yes, sir.

Mr. POAGE. In other words, it is not a disease that makes the meat unfit for consumption. I say disease. I mean these sheep that do not have the scrapie.

Mr. MORRISON. That is correct, sir.

Mr. POAGE. So, there is a certain salvage value, particularly from grade sheep. Of course, the percentage of salvage value of breeding sheep is very small, I understand that. In grade sheep there is a substantial salvage value. You do not have to brand grade sheep as you do brucellosis cattle, do you?

Mr. MORRISON. No, sir.

Mr. POAGE. As I understand the testimony of Dr. Bendix, there was nothing to keep that neighbor of yours from refusing to accept this indemnity and keep his sheep and do as he pleased with them. There was no quarantine thrown on him, is that not right?

Mr. MORRISON. Yes, he was quarantined.

Mr. POAGE. Under what authority? I want to get that. I ask you, Dr. Anderson, under what authority did you quarantine them?

Dr. ANDERSON. In this case, we did not apply Federal quarantine.

Mr. POAGE. Dr. Bendix, by what authority did you quarantine them?

Dr. BENDIX. When we have a report that there is a suspected infectious disease on a premise in Virginia, a temporary quarantine is placed on the premises until we can determine what, if anything, is there. As soon as a determination is made that there is nothing there, the quarantine is lifted. If we find something there, like in Mr. Morrison's flock, if we had found a case or two of scrapie, the quarantine would be maintained only until those animals had been removed or had been destroyed.

Again, this would be brucellosis, tuberculosis, or what have you. In scrapie, the quarantine would remain until the animals involved, their immediate progeny, if any, on that premise, their sire and dam if either one or both were on that premise, were removed or destroyed. Then the quarantine would be lifted. We would not quarantine him beyond the actual existence of the trouble.

The problem with the purebred man, as far as Virginia is concerned, whether or not they slaughter all the rest of the flock, is a voluntary one. It is not quite that voluntary, because there is always the threat of an interstate quarantine.

Mr. POAGE. I understand the problem of the purebred man, but I do not understand the problem of Mr. Morrison's neighbor, who had a herd of 300-some-odd grade sheep. Is that not right?

Mr. MORRISON. Yes, sir.

Mr. POAGE. He sold them at Staunton or Harrisonburg or wherever he wanted to take them. He did not ship them to Baltimore or Philadelphia, did he?

Mr. MORRISON. They were sent to Richmond.

Mr. POAGE. There was no interstate movement from Staunton to Richmond. It was all in the State of Virginia.

Mr. MORRISON. That particular flock, yes, sir.

Mr. POAGE. I am getting at: Why did the man submit? I am trying to find out these things, Mr. Morrison, because, after all, we want to know who is putting the pressure on somebody. We want to know what representations are being made. Why would this man take a \$15,000 loss when there was nothing in the world that anybody could do to him?

Mr. MORRISON. Sir, this man was quarantined by the Federal Government just as I was—

Mr. POAGE. Wait a minute. These people say they could not quarantine him. I do not mean to say you did not quarantine this individual, but you say you have no authority to quarantine a man.

Dr. ANDERSON. Mr. Chairman, we have authority, and here is the way it works. On these programs where it is required that the herds be placed under quarantine until properly disposed of, if State action is not adequate to prevent movement from those farms, then the Federal Government will quarantine the flock against interstate movement, not against movement within the State.

Mr. POAGE. But that quarantine against interstate movement was just about as effective against this fellow up at Staunton, Va., with a

grade herd, as it would be to place a Brazilian quarantine on meat in Texas. He does not ship them out of the State anyhow, so how does the quarantine hurt him?

Dr. ANDERSON. In this case, Mr. Chairman, we considered the Virginia action as adequate, and we did not place a Federal quarantine on the premise.

Mr. POAGE. You did not place a quarantine on it, either, did you?

Dr. BENDIX. Mr. Chairman, I think we are a little bit at cross-purposes and there is a misunderstanding.

Mr. POAGE. We sure are.

Dr. BENDIX. The Federal man in the Harrisonburg area where the flocks were located, placed a quarantine on the flocks involved, a temporary quarantine, under the authority of the State of Virginia. I authorize the Federal people to do this where they are the closest and it is the cheapest and easiest to get to. This was done under the authority of my office. This was not intended to do more than hold his flock on the premises until we determined what the situation was. That was all.

Mr. POAGE. Then does it not probably boil down to this, Mr. Morrison? You folks at Staunton just did not understand how limited the power of these agencies was, and you figured they had a whole lot more power than they had and, therefore, you let them—

Mr. MORRISON. Mr. Chairman, as I said this morning, this is my second go-round with scrapie. Back in 1957, I had another attack of it. So scrapie is a bad word, and we try to cooperate with whoever ties us up, whether the Federal Government or the State. Scrapie is just a terrible thing. All we are told is that, "You are going to be quarantined, and you are going to get so much from us for them."

Maybe we misunderstood all along.

Mr. POAGE. I think that is exactly what has happened. I am trying to get clear here who is to blame for this sort of misunderstanding. I know sometimes agents of both State and Federal Government—I am not talking merely about the State of Virginia; I know that agents of both State and Federal Government oftentimes come around and give individuals the impression that they have a great deal of authority that they do not have. I do not mean they simply outright lie to them, but they give that impression.

I do not know that I am blaming them particularly for it.

Did you folks at Staunton make any effort to find out what the authority of these people was?

Mr. MORRISON. Yes, sir.

Mr. POAGE. Did you go to a lawyer?

Mr. MORRISON. No, sir.

Mr. POAGE. Who did you ask?

Mr. MORRISON. We brought it up with the association on the first go-round. I thought I was working pretty close with Dr. Anderson and others. When stock in 14 other States were tied up as a result of my flock, it was a pretty serious thing, and it was so big I could not control it.

Mr. POAGE. I understand how they could tie your thoroughbred flock up rather effectively and circumscribe your activities, but I am yet at a total loss to understand how he could effectively tie up a grade herd that was being grown solely for wool and mutton.

Mr. MORRISON. Sir, I have the Federal quarantine on the 317 sheep. All I know is, it is a Federal quarantine. I would not attempt to make any further statement, other than it was a quarantine from the Federal Government. To me, that means a whole lot.

Mr. POAGE. I think that is the way most people would react. I think your reaction is perfectly normal, Mr. Morrison, and I think probably I would have reacted the same way. If some gun-toting, badge-wearing individual walked down to my gate and said, "I am posting a quarantine notice on you," I probably would have reacted the same way. I would say, "What can I do about it?" He would say, "You can take \$9,000 for your \$26,000 herd." I do not know that I would have taken it as fast as your neighbor apparently did, but I can understand people doing that.

(The Department subsequent to the hearing submitted the following information concerning the above-mentioned case:)

STATEMENT ON APPRAISAL AND INDEMNITY PAID—WOODROW W. ASHBY'S
FLOCK, AUGUSTA COUNTY, VA.

The attached scrapie summary sheet gives details concerning the Woodrow W. Ashby scrapie infected flock slaughtered November 15, 1961.

Other details are as follows:

Appraisal date: November 1961.

Appraised value, 314 purebred and mixed sheep: \$24,645. Salvage: \$830.

Indemnity paid (Federal): \$9,800.

No State indemnity paid.

Mr. Ashby was engaged in a type of breeding experiment involving the appraised sheep. He had acquired many of the animals as "grade" foundation stock from an island off the shore of North Carolina. The sheep were running "wild" on the island and were "captured" to be placed with Mr. Ashby's purebred rams. His goal was to breed a crossbred domestic sheep with qualities superior to the "western type" sheep common in Virginia. Dr. Roukema thinks that Mr. Ashby was cooperating with VPI in the project.

Dr. Roukema furnished the following breakdown on individual appraisals of the 314 sheep:

	Each
20 purebred Hampshire ewes-----	\$160
4 purebred Hampshire rams-----	175
2 purebred Southdown rams-----	190
2 purebred Suffolk rams-----	180
11 purebred Hampshire yearlings-----	165
3 grade rams (high quality)-----	75

The remainder of the flock (all grades) was appraised in groups:

	Each
99 mixed breed sheep-----	\$70
5 mixed breed sheep-----	55
29 mixed breed sheep-----	60
10 mixed breed sheep-----	60
137 mixed breed sheep-----	65

In addition, the two infected ewes (both purebred but without papers) were appraised for \$90 and \$75, respectively.

Mr. POAGE. As a matter of fact, neither the State nor the Federal Government makes any effort to let these people understand that they do have any other rights or any other recourse; do they?

Dr. ANDERSON. Mr. Chairman, I would like to say that when scrapie first appeared in this country, the Federal Government invited State and Federal regulatory officials, members of the industry, and research workers in this country, to research the literature over the whole world about scrapie, and the program derived was the result of the best thinking of that group at that time.

Since then, in 1958, we appointed a study group which again went in great depth into the whole scrapie problem, to determine if the program should be discontinued, modified, or continued in its present form. With slight modification, it was determined that it should be continued, recognizing, of course, as the industry recommended also, that additional research be conducted.

Because of the long incubation period and the great number of years that would be required to get any answers at all, the Department of Agriculture, so to speak, bought into research that was being conducted in Great Britain, through the Public Law 480 fund. That research is really paying off. They are finding out a lot of things about the disease which confirms that the program now in effect is justified.

Mr. POAGE. Are you satisfied that scrapie is a virus or germ disease?

Dr. ANDERSON. We are satisfied from the research which is being conducted in Great Britain that the disease can be transmitted artificially, that the disease has been transmitted through contact from animal to animal. They have not identified it specifically as a virus or bacteria, but they are confident that it is a transmissible agent.

Mr. POAGE. Dr. Hutt stated there was not any question that it could be transmitted artificially. What evidence is there that it has been transmitted from animal to animal in natural state, without the intervention of somebody doing it purposely? What evidence is there to that effect?

Dr. ANDERSON. Mr. Chairman, I would like to call on Dr. Hourigan, here, who has close contact with the research program.

Dr. HOURIGAN. First, Mr. Chairman, we might say something about the virus theory. As Dr. Anderson said, the Department has continuously reviewed the matter of scrapie with research workers, and it is the consensus, not of the Department itself but of all research workers, except Parry, who have done work with scrapie, that it is caused by a virus.

Mr. POAGE. You say it is the opinion of all who have done work—

Dr. HOURIGAN. It is the consensus of all. Dr. Parry, who was quoted this morning, differs from that, but taking the group as a whole, Dr. Stamp of Scotland, Dr. Gordon in England, and the French research workers, Dr. Hadow of the U.S. Public Health Service in Montana, and Dr. Morris with NIH here in Washington—it is the consensus that it is caused by a virus, an unusual virus but a virus.

Mr. HARVEY. Could I interject one question?

You say you have more or less farmed out the research work on this disease to some British agency. What is the nature of this agency in Britain?

Dr. ANDERSON. This is the British Government Ministry of Agriculture. It is carried on at their facilities and under the supervision of the British Ministry of Agriculture.

Mr. HARVEY. Do you consider this a competent research agency?

Dr. ANDERSON. Very much so. I believe it is recognized throughout the world as one of the outstanding research institutes in the world.

Mr. HARVEY. If the chairman will yield further just briefly, do you have in your files any evidence or statement that the committee could have which substantiates the statement you have just made that it is the consensus of those who are doing the research work that it is a virus?

Dr. ANDERSON. We would be glad to furnish the committee with information on that subject.

Mr. HARVEY. I thank you.

(The information requested above follows:)

CAUSE OF SCRAPIE

Scrapie has been recognized for some two centuries and its cause and epidemiology have been a subject of controversy, often heated, for almost as long. Different theories have been presented from time to time including the following: (1) Hereditary, degenerative, (2) alimentary toxic, (3) parasite theory, (4) infectious agent theory.

The infectious agent theory was greatly strengthened when in 1936, Cuillé and Chelle demonstrated transmission by inoculation, and later demonstrated that the infectious agent was filterable, transmitted the disease to the goat by inoculation, and from sheep to sheep by cohabitation.

It has been observed for many years that scrapie has strong familial association and thus sheepmen believed the disease to be of genetic origin. In 1956, Bosanquet, Daniel, and Parry published a paper describing scrapie to be primarily a myopathy rather than a central nerve condition and questioned that the disease could be transmitted by inoculation. These views are not supported by any other scrapie research workers. Later, Parry postulated that the cause of scrapie is an autosomal recessive gene. Again, other scrapie research workers do not support this view. Information developed by scrapie research workers has been considerable. Research workers have produced scrapie in animals by inoculation with brain tissue, brain stem, cerebrospinal fluid, pituitary body, lumbar spinal cord, sciatic nerve, adrenal gland, spleen, pancreas, and liver from affected animals. They have also reported transmission by the following routes: Intracerebral, epidural, intravenous, intraocular, intradermal, intraperitoneal, subcutaneous, by applying the inoculum to the scarified skin, and by feeding sheep, goats, and mice brain tissue from affected animals.

More recently, mice have been infected by inoculation with various tissues and through various routes of inoculation and by oral administration. The initial passage to mice has been made using material from infected goats or infected sheep. In addition to the work with sheep, goats, and mice in England and Scotland, work, particularly with mice, is being done by Dr. W. J. Hadlow, USPHS, Rocky Mountain Laboratory, Hamilton, Mont., Dr. J. A. Morris, USPHS, NIH, Bethesda, Md. Work is also being done by Dr. Donald P. Gustafson at Purdue University and in Canada. Most of the scrapie research workers do not accept a hypothesis that scrapie is due to a simple autosomal recessive gene and cannot spread by contact. Actually, some workers, even in early scrapie research efforts, felt that scrapie could spread by contact. In 1961, Dr. J. T. Stamp, director, Moredun Institute, reported the results of a simple contact experiment in which five goats, placed in contact with scrapie-infected sheep that were 1 day old, all developed symptoms of scrapie.

Other diseases which at one time were thought to be genetic in origin have now been proven to be caused by viral agents; and new looks are now being directed toward many diseases, including those of man, once thought to be genetic in origin. Dr. W. S. Gordon, Director of the British Agricultural Research Council Field Station at Compton, England, believes that there are two important factors involved in the transmission of scrapie: (1) A heritable factor or factors which determine resistance or susceptibility to scrapie, and (2) an environmental factor which is the transmissible agent of scrapie. Genetic resistance and susceptibility in varying degrees within a species of animals has been reported in swine, sheep, cattle, horses, chickens, rabbits, mice, rats, guinea pigs, bees, oysters, plants, and disease agents themselves. This genetic resistance and susceptibility has been discovered in the cases of viruses, bacteria, fungi, parasitic protozoa, lice, fleas, etc. Thus, genetic susceptibility and resistance is something to be expected rather than an unusual condition.

CONSENSUS OF RESEARCH WORKERS THAT SCRAPIE CAN SPREAD BY CONTACT

In a review of those research workers who have actually done research transmission studies on scrapie we find that Drs. Greig, Stamp, and Dickinson of Scotland; Drs. Gordon, Chandler, Zlonik, and Pattison of England; Drs. Cuillé and Chelle of France; and Drs. Hadlow, Morris, Gadjusek, and Gustafson of the

United States all consider that scrapie can be spread by contact. Only Dr. Parry of England claims it is not spread by contact.

Mr. POAGE. Thank you, Mr. Harvey. I think what you know about this is extremely important. I think you are doing a lot of guessing, and you have to do a lot of guessing on something on which you do not have background. Everybody has to guess on it and devise some theories. Whether you ought to buy a theory as expensive as this is in proportion to the protection it gives, seems to me to be a right serious question. If this disease was killing sheep as foot-and-mouth disease kills cattle, and if we knew it spread like wildfire, I would say, yes, you could go a whole lot further with your guessing; but your guesses so far have apparently cost the sheep industry many, many times as much loss as the disease costs them. In other words, the remedy is a whole lot more dangerous to the industry than the disease.

Does that make very much sense?

Dr. ANDERSON. Mr. Chairman, all eradication programs are costly and inconvenient, but in the case of scrapie, the British people tell us that sheep raising cannot continue to be profitable once the disease establishes itself in a flock. In the beginning, the losses may be only up to, say, 5 percent or less, but the longer the disease exists in the flock, it continues to spread in an insidious way to where as high as 50 percent may be involved.

We do not believe the disease has been in this country long enough to become firmly established in our sheep industry. We believe that we are justified in going ahead with the program that we have underway.

Mr. SHORT. Mr. Chairman, it seems to me the point we are getting to here is whether or not this disease is truly infectious or transmissible from an infected animal to a noninfected animal.

Has it positively been established that this disease has ever been naturally transmitted from a diseased animal to a healthy animal?

Dr. ANDERSON. It has, Mr. Short. In British research, by taking uninfected animals and quartering them or pasturing them with known infected animals, they have been able to transmit the disease.

Mr. SHORT. This is in a research program, however, and not, to to your knowledge, in any actual happenstance here in the United States. Is this true?

Dr. ANDERSON. We have found in the United States, infected sheep in many flocks that have been traced back to a common source flock, which have been determined as the origin of that infection in the other flocks.

Mr. SHORT. Could this not conceivably be the same basic problem that we have with dwarfism, that you could trace dwarfism back as far as you want to go, as I understand it, and yet there is no infection involved so far as the afflicted animals are concerned? So, we are dealing here with the problem of removing the actually infected animals, rather than removing animals that do not have the disease, that have just been exposed to the disease. It is a problem of genetics rather than infection, is it not?

Dr. HOURRIGAN. Mr. Chairman, I think I can clarify that—

Mr. POAGE. Go right ahead.

Dr. HOURRIGAN. By very briefly stating some of the many things which our research has developed.

One thing is that you can take various tissues of a sheep's body, a sheep with scrapie, or a goat or a mouse—the liver, spleen tissue, brain,

spinal cord, cerebrospinal fluid, lymph nodes—and you can grind any of those up and inoculate them into sheep, goats, and mice, and they come down with scrapie. You can inoculate the sheep, goats or mice in the brain, in the blood stream, under the skin, or you can rub the skin raw and apply the inoculum on a sheep or goat or mouse, and it will come down with scrapie.

These animals will come down with the disease if you feed them these tissues by mouth.

Mr. POAGE. You can do the same thing with cancer in mice. You can move cancer from one animal to another. But they have not proven that cancer is infectious, that I have ever understood.

Dr. HOURRIGAN. Some cancers have been proved to be caused by viruses.

Mr. POAGE. I have understood the theory. I have not known that anybody proved cancer was caused by virus. If they have, we are doing a whole lot of spinning of our wheels now. I did not know we had proven anything, but some people have the theory that certain cancers are caused by virus.

We certainly can transpose cancer from one animal to another. We have not proven that it is infectious. We do not quarantine against it. I have never seen anybody with cancer who was quarantined against visitors.

Dr. HOURRIGAN. For example, Dr. Stamp in practical research took six kid goats that were 1 day old, and put those six goats in with scrapie-infected sheep in a little pasture he has there in Scotland at the research institute. One of the goats died of unknown causes, but over a period of time all other five goats developed scrapie.

Mr. MATTHEWS. What about the genetics in that case? Did they come from any particular type of stock or the same stock?

Dr. HOURRIGAN. The goats?

Mr. MATTHEWS. Yes, the goats.

Dr. HOURRIGAN. They were from several different goat herds. I do not know that they were from six different ones, but they were not from the same one. I do not know the genetic background.

Mr. SHORT. Mr. Chairman, may I get back to the simple question I was trying to ask a minute ago.

Do you have any positive evidence here in the United States of scrapie ever being transmitted naturally from an infected animal to a noninfected animal? You have delineated that it is possible to artificially transmit the disease, but the thing that we are dealing with here in the livestock industry is the threat of the spread of this disease in a natural manner. Do you have any positive evidence that this has happened?

Dr. HOURRIGAN. In all of our 126 infected flocks, that has happened.

Mr. SHORT. Do you positively know this, or has this been due to the susceptibility of the animal because of some genetic characteristic of the animal?

Dr. HOURRIGAN. Going back to what Professor Hutt mentioned—I have read his book and enjoyed it very much—I think he will tell us it is true that genetics play an important part in any and all infectious diseases. Whether they play an even greater part in scrapie is a matter, perhaps, to be debated, but it is not an unusual thing to have genetic susceptibility play an important part in disease transmission.

Mr. OLSON. The question I want to ask is, is there an agreement that scrapie is dangerous, or will cause you problems? Is there any movement by a large representative group of the growers to get rid of this program?

Mr. CANESTRAIGHT. Mr. Olson, it was testified by Dr. King in this entire program in which they have slaughtered over 60,000 sheep there have only been 200 scrapie animals that had the disease. It is not a problem. They have never done it on the Continent. They have known about this disease for 200 years. They have not used such a slaughter program. Canada has used it. The United States has used it.

Yes, they would like to get rid of this program. They intended to introduce legislation to get rid of this program because they cannot convince the Department they ought to take the infected animal, his father, mother, and his offspring and destroy them forthwith, which is consistent with Dr. Hutt's theory, the geneticist, that 90 percent of the rest of the animals would be resistant naturally to the disease anyway.

Mr. OLSON. Secondly, you have to convince the State legislatures in which this program has been enacted. Those States and legislatures have moved in the direction of having such a program, or participating in it. Is that right?

Mr. CANESTRAIGHT. No, sir.

My home State of Missouri, and a large majority of the States, merely have statutes that provide for the destruction of animals that are infected with an infectious or contagious disease. When you get to the indemnity feature involved, they assume, because of this virus theory, that the animal is so infected and will appropriate funds.

In my home State, our State veterinarians came up with a stack of claims simply because our legislature will not appropriate any money in advance on this scrapie program. He goes up with a group of claims because these farmers out there have only been paid 50 percent. He can generally get 25 to 50 percent of the total amount of the claims out of the legislature.

Mr. OLSON. Should you not be presenting to those bodies the same type of testimony, when you are asking for that matching grant you are presenting here which will at least reveal to them that this program perhaps is not working?

Have you just gone up and said, "Give us some money for what someone else has done?" Have you given them some facts to cause them to consider the advisability of appropriating these funds?

Mr. CANESTRAIGHT. We have not specifically. We feel we can get this stopgap legislation indemnitywise enacted, fine, but we are going to put a bill in next time, or ask someone to put it in for us, to repeal the power of the Secretary to slaughter these healthy animals, and then we would not have to worry about an indemnity program.

Mr. OLSON. Are you going to introduce that same legislation into each State legislation?

Mr. CANESTRAIGHT. It would not be necessary.

Mr. OLSON. They could have a statute against participation in such a program and the Government could not get in and participate in the program, right?

Mr. CANESTRAIGHT. That is true, if you could get such a statute.

Mr. OLSON. One more question on the indemnity part.

Are these appraisals of these herds rather high?

What is the value of a grade animal?

Here we have a grade flock of 317 head and they are appraised at \$24,000. Something is wrong. Does not the Department know how to assess a flock of sheep?

If they are a grade flock, the amount he received was about the actual value of the flock, if I am any judge of values.

Dr. ANDERSON. The limitation on grade sheep that would be eligible for indemnity would be a maximum of \$25.

Mr. OLSON. I am saying what is the value of them? It is not \$100. It is not \$80. This figure given to us would be \$80 a head for a flock of grade animals. I think you better do some correcting of your figures.

Mr. MATTHEWS. This one question occurs to me.

Doctor, what do they do in England to get rid of scrapie? What is their program?

Dr. HOURRIGAN. I am glad you asked that question.

Dr. Parry, who has been quoted here, has entered into a voluntary scheme, as they call it in England. They have about 50,000 sheep in various flocks, about 3,500 flocks, and the purpose of the scheme is to assess losses from all diseases, scrapie and all, and try to improve the breed and keep careful records on what the disease losses are and what production losses are to increase the income of the sheep producers.

To quote Dr. Parry, he says that scrapie in these flocks he has looked at that have scrapie causes heavier losses than all other diseases put together.

Mr. POAGE. Is their experience in England the same as here, that Suffolk sheep have most of this disease?

Dr. HOURRIGAN. Yes, sir.

Up to about 35 years ago there was practically no scrapie in Suffolk sheep, but, as Dr. Gordon describes it, the disease got into one or two of the major breeders' flocks. They realized it, so they dispersed their flocks, and in dispersing their flocks the disease became scattered rather widely in Suffolk sheep.

Mr. POAGE. You mean no other breeds were dispersed?

Dr. HOURRIGAN. Practically every breed in England has scrapie. There may be some that do not have. Welsh Mountain sheep I believe do not have it, but every other breed has, or most of them.

Mr. MATTHEWS. I just want a little more information about the program in England.

For example, I would say that the program is not very popular in this country with the sheep owners.

I wonder if in England they have had some kind of a similar program of eradication. You told me about an experimental program. I understand they have a lot more sheep in England than we have in America. Have they had many losses from scrapie?

Are their sheep owners faced with an unpopular program over there?

What did they do with all their sheep owners in England to control this scrapie?

Dr. HOURRIGAN. They are faced with two problems actually. One is, when the word gets around that a certain flock has scrapie, that has a strong tendency to decrease the value of this man's flock and his sheep. He finds it more difficult to sell breeding sheep than

he did before because it gets around that he has scrapie. That is in the absence of any regulatory program, which they do not have.

The other important facet of it to all breeds, or most of them, is that several countries no longer will receive sheep from England, that is breeding sheep. Their big business through the centuries has been the export of the fine sheep they have. Many of those exports have been cut off in recent years because of scrapie.

Mrs. MAY. Doctor, is this Dr. Parry that is carrying on the research program of which you spoke the same one quoted here in a speech before the National Institutes of Health and Johns Hopkins, in which he says:

I say categorically, neither in my work, nor in the literature, is there a shred of provable evidence that scrapie can be spread by contagion or infection under normal field conditions.

Is that the same Dr. Parry?

Dr. HOURRIGAN. Yes.

Mrs. MAY. Then any program they are carrying on right now in England is based on the assumption that scrapie is not contagious or infectious?

Dr. HOURRIGAN. That is correct. That is this voluntary scheme Dr. Parry conducts with this group of breeders.

Mrs. MAY. The basis of the program is based on Dr. Parry's assumption, in all his research work so far and other British scientists working in this, that scrapie is not contagious or infectious under normal field conditions.

Dr. HOURRIGAN. That is correct.

Bearing in mind they are not trying to eradicate scrapie, they are trying to decrease the losses due to the disease.

Mr. MATTHEWS. About how many cases of scrapie would they have in England a year?

Dr. HOURRIGAN. Dr. Parry says the disease—and I keep quoting him because in this scheme he visits these flocks twice a year and talks to the flock masters and says he has their confidence, and he has an opportunity to know a good deal about their operations, and he says this may be a sporadic disease, 1 or 2 percent of the animals, or heavier, 5 or 10 percent. Once the disease gets into a flock and spreads, it may be 40 percent of the second crop ewes, as he describes it, ewes between 2 and 3 years old.

Mr. MATTHEWS. You do not know of any numbers like 1,000, 2,000, or 3,000 a year throughout England. We have had testimony that in this country there are just a few dozen cases.

Dr. HOURRIGAN. It is not a reportable disease in England. The British law, if I understand it correctly, is that once a disease is declared a reportable disease, then they must have an eradication program for it.

Mr. MATTHEWS. This is not a reportable disease?

Dr. HOURRIGAN. Not in England. That is correct. It is one the shepherds try very hard to hide and they will not tell anyone they have it.

Mr. POAGE. What effect does this have on goats? I know you said you could give it to goats. Do you have many cases in the goat business of scrapies?

Dr. HOURRIGAN. In France, some cases. The first cases in goats were reported in France, natural cases.

Mr. POAGE. What about in the United States in goats?

Dr. HOURRIGAN. We have not had any reported here in goats. Only in a very few instances have there been any goats associated with a flock of sheep found infected.

Mr. POAGE. We have more sheep in Texas than any State in the Union, and the largest part of the goats.

Dr. HOURRIGAN. Fortunately you have not had many cases of scrapie.

Mr. POAGE. Unfortunately, I fear we have had some cases in sheep, but I do not know of any among goats.

Dr. HOURRIGAN. I will say a goat, if it is inoculated in the brain with scrapie tissue from a sheep, is 100-percent susceptible. All of them come down.

Mr. HELMS. I would like to say a few words, and I think the committee should know, that the Illinois officials, plus the USDA men, came to the St. Clair County Fair and quarantined me and insisted in going out to my place. I asked for legal advice from an attorney. They granted me just about an hour.

Mr. Dixon was my attorney. He was in the House of Representatives of the State of Illinois. I could not get hold of him until 10 o'clock that night. Under strict pressure they held me until I got hold of Mr. Dixon for legal advice. That was my entire life's work, breeding these sheep.

I started in 4-H Club work and produced this flock. I think Mr. Gates was our secretary. Anyway, they quarantined all sheep owned by me, whether on my farm or elsewhere.

I had bought Southdown sheep at Staunton, Va., and they were never on my farm, but under the quarantine I was forced to bring those sheep home and put them under quarantine.

This quarantine was an Illinois quarantine, but signed by a representative of the USDA. I fought this thing because I thought it was unjust. We had hearings in the executive board committee, and we have a few of our board members here.

I was warned not to say a word. Dr. Hourrigan was on the program and he made a statement it was very obvious that the flock of sheep involved was sired by a Harris ram and it was a known fact the flock had scrapies in it. This Harris ram was from Indiana. But the Harris ram—ram 226—was bred in Iowa.

Mr. Dixon fought this thing in Illinois. One day he slapped his head and said, "My God, I helped put that bill through. It is one of the worst I ever helped put through."

I fought this thing for 2½ years. The Department brought Mr. Adams into Springfield. Mr. Adams of Oregon got up and testified that this sheep died. They asked him for his identification. They asked him if the ram was tattooed. He was not. They failed to produce a tattoo on that sheep. I do not believe they ever proved it was my ram.

If an animal is tattooed, they should see it.

I want to tell you the truth, the inspectors were at my place one day, Dr. Shultz, an inspector from Waterloo. I had a ewe die that day. She had mastitis. Everyone looked at her. They came back a couple of times and asked for all my records and I gave them everything I had.

I asked them this question—that sheep that died, was she tattooed? They said “No, sir.” I had saved her ears in the deep freeze with her labels. There was not a single one saw it was tattooed. Yet the report from the State of Oregon by officials failed to give the tattoo of that ram.

Anyone can put a label in an ear, but they failed to give a tattoo to that ram. But I could not sell my sheep for 2½ years or anything.

We brought Mr. Adams’ son right back on the stand and he testified we had bought seven sheep and one died of the same thing. Through our secretary, there was not a sheep transferred. Is that not right, Sam?

I went to see the Governor and told him my case. He said, “Well, I am sorry. This is the hardest thing I have ever done in my life, quarantine you, because three people in the State of Illinois have put Illinois ahead in livestock. Yet, under that evidence, what else can I do?”

I am asking you people as representatives of the people if I had infected sheep, I would have been happy to let them come in and take the infected sheep. But when they destroy your lifetime work of breeding sheep for 42 years, producing the first prize flock in the Illinois State Fair for 25 years straight, that is a different thing.

I thank you.

Mr. POAGE. Thank you. Mr. Mostow, how do you answer that proposition about this question of reasonable doubt?

How far do you go toward identifying animals before you subject individuals to tremendous losses?

I know you cannot pass on the evidence in his case. You heard it. You have heard it before.

Mr. MOSTOW. I have not heard it before?

Mr. POAGE. You have heard it before.

Mr. MOSTOW. No, sir.

Mr. POAGE. Who is supposed to handle these things down in your Department?

Mr. MOSTOW. I do not have any idea about this particular case.

Mr. POAGE. You mean the Department does not go into these cases; is that right? Obviously it is right.

Mr. MOSTOW. This was a hearing, I believe, in the State of Illinois.

Mr. POAGE. I know, and the Department was interested enough in it to find out the facts, was it?

Mr. MOSTOW. I do not think that is true.

Mr. POAGE. Were you interested enough?

I do not want to put it that way, but were you interested enough to find out the facts?

Mr. MOSTOW. I was not aware of it. I am sure the Agriculture Research Office officials were.

Mr. POAGE. Was anyone aware of the method by which you connected this man’s ram with the Oregon ram and identified them as being the same?

How did you do it?

Dr. ANDERSON. Dr. Hourrigan is a little more familiar with this case.

Dr. HOURRIGAN. The man in Oregon that purchased Mr. Helms’ ram testified it was Mr. Helms’ ram that had scrapie. His testimony

and various others' testimony presented at the hearing in Illinois satisfied fully the officers presiding at that hearing.

Mr. POAGE. Would it satisfy you if you had known that the ram was not tattooed and that they claimed he was?

Would that have raised a reasonable doubt in your mind?

Dr. HOURRIGAN. Tattoos are easy to overlook, as Mr. Helms pointed out.

Mr. POAGE. That is right. They testified the ram was tattooed, did they not? Your people testified the ram was tattooed, did they not?

Mr. HELMS. No. He was tattooed, but they had no tattoo whatsoever.

Mr. POAGE. They simply failed to bring the one piece of conclusive evidence they could have produced?

Mr. HELMS. I tattoo my sheep in different places. This particular ram had a twin mate. I went all the way to Montana to see his twin mate and he was tattooed. Their numbers were 816 and 817.

This ram died on Saturday, and he was not post mortemed until Monday. Perhaps he smelled too bad because he laid out in the barn. Maybe they did not want to look at his ears.

I would be very, very happy to send to you the records from the USDA from Des Moines, Iowa, of what killed that ram.

Dr. HOURRIGAN. What color tattoo ink did you use?

Mr. HELMS. Black.

The three men who made the appraisal gave the valuation as \$52,000. I had to accept \$36,000, plus indemnity.

I would be glad to have Mr. Dixon, my attorney——

Mr. POAGE. I do not believe this committee can pass on the value of a herd of sheep.

I think Mr. Olson made a good point on this Virginia herd. It sounds ridiculous. I do not think we can sit here and pass upon the value of sheep. We can pass upon whether or not the Department is exercising reasonable diligence in trying to know the facts.

It does not seem to me a thing as important as this is, and having as far-reaching consequences as this, that anyone who is familiar with thoroughbred sheep would ever fail to try to find a tattoo mark.

Dr. HOURRIGAN. There were Helms' sheep that had scrapie. This was not the only one.

Mr. POAGE. This is the only one reported to this committee. We keep discovering these things.

Where were the other sheep? This was the one you based all your actions on, was it not?

Dr. HOURRIGAN. Not all. The initial action, that is correct. The other two were in Illinois.

Mr. POAGE. There were two others in Illinois? Were they still in his possession?

Dr. HOURRIGAN. No, sir. They had been previously sold.

Mr. HELMS. One ewe that had left my place a year and a half. The University of Illinois said she had died with lead poisoning, arsenic poisoning. That is what they claimed.

The other ewe left my place, I do not know when.

I did not know where those sheep were. One was a ram they said had scrapies in his blood. His twin mate and his descendants in Indiana were never touched. When they found him in New York

under my records, they got him. There was nothing done in Indiana with twin mates, sons, and daughters, whereas all mine were destroyed.

Mr. POAGE. That seems to me to be an unreasonable attitude to take.

I say to the Department in all kindness, it is utterly unreasonable to go to such lengths to try to trace down one suspected animal as you did in this case, and not follow his twin and make no effort to follow that out. It raises a question.

Mr. Helms has made the statement. He said you condemned all the sheep he owned, regardless of where they were, and even though they had never been in Illinois.

Is that according to your understanding?

Dr. HOURRIGAN. No, sir.

Mr. POAGE. No, sir. All right, Mr. Helms said he had sheep bought in Virginia and they required him to bring them to Illinois.

Mr. HELMS. Correct.

Mr. POAGE. And they required you to put them with the herd and keep them there?

Dr. HOURRIGAN. I think Mr. Helms put them in the flock because he wanted to, not because anyone required him to.

Mr. POAGE. Let's get to the root of this.

Who told you to bring them there?

Mr. HELMS. The quarantine read that all sheep owned by Alvin Helms and son, whether on the farm or any fair circuit, and these particular ewes were on the St. Clair County Fairground and had never been on my farm, all sheep were to be brought immediately under quarantine at my residence.

I would be happy to send you the quarantine.

Mr. POAGE. Is that not the way the quarantine read?

Dr. HOURRIGAN. I have not seen the quarantine.

Mr. POAGE. Do you have a copy of it?

Mr. HELMS. Yes. It is signed by the USDA representative.

Mr. POAGE. If I read it correctly:

All sheep owned by Mr. Helms and son that are located on the farm, or other farms, as well as those on show circuit, Pulaski County Fair, St. Clair County Fair, that are to be returned to the above premises.

We will insert the quarantine.

(The quarantine referred to follows:)

Form 16-90

STATE OF ILLINOIS
WILLIAM L. STRATTON, Governor
DEPARTMENT OF AGRICULTURE
STILLMAN J. STANARD, Director
DIVISION OF LIVESTOCK INDUSTRY
SPRINGFIELD

NOTICE OF QUARANTINE
IN CASES OF CONTAGIOUS AND INFECTIOUS DISEASES IN DOMESTIC ANIMALS

To ALVIN H. HELMS & SON August 3 1960
P. O. Address Route #1 BOSEWILLE Illinois

Dear Sir:—

In conformity with the provisions of "An Act to revise the law in relation to the suppression, prevention, and extirpation of contagious and infectious diseases among domestic animals," approved July 23, 1941, as amended; the Department of Agriculture, Division of Livestock Industry, having good and sufficient reason to believe that the following described animals:

ALL SHEEP OWNED BY ALVIN H. HELMS & SON
THAT ARE LOCATED ON HIS FARM OR OTHER
FARMS AS WELL THOSE ON SHOW CIRCUIT
WENT AT PULASKI COUNTY FAIR, HAMILTON COUNTY FAIR
ST. CLAIR COUNTY FAIR THAT ARE TO BE RETURNED
TO THE ABOVE PREMISES. THESE SHEEP ARE
BEING QUARANTINE AS THE RESULT OF THE
DIAGNOSIS OF SCRAPIE IN A RAM - HELMS #1098
REG. NO. 83443 --

now owned by you or controlled by you or in your possession at Rt 1 Bosewille
Illinois, County of St. Clair

are diseased with SCRAPIE - SOURCE FLOCK
or have been exposed to the contagion thereof, and that their condition renders them dangerous to other animals, now hereby declares the above described animals, and the premises which said animals occupy, to be subject to quarantine, and the same are hereby placed and shall remain in quarantine until released by order of the Department of Agriculture of the State of Illinois.

It shall be your duty to keep the quarantined animals confined in such manner that other animals not included in this quarantine cannot come in contact with the same, or come within your quarantined premises; and you are hereby prohibited from moving the quarantined animals by driving, or by hauling, or by shipping the same from your premises without a permit from the Department of Agriculture allowing such removal, and then only in strict compliance with the terms of such permit, until said animals are released from quarantine.

Failure to comply with the provisions of the law cited above will render you liable to the fines and penalties provided in such law.

DEPARTMENT OF AGRICULTURE
Division of Livestock Industry

A. K. Meehan
A. K. MEEHAN, D.V.M.
Superintendent

Issued by A. C. Smith
Jefferson USDA - APED.

EXHIBIT A

(3774) - 4M (Rev. 4-57)

Dr. HOURRIGAN. If it says "returned," that would not apply to sheep that had never been there.

Mr. POAGE. I do not know. I think it does. I think it would apply. These sheep were being quarantined as a result of the diagnosis of scrapies of a ram, Helms, 1098, register No. 83443.

Did you discuss that, Mr. Helms, with the representative of the Department?

Did you ask him why you had to bring back sheep that had never been on the farm?

Mr. HELMS. Yes.

At the same time, Dr. Sleisenger, a veterinarian, was there and they warned him they would quarantine his sheep. He said, "No; you will not do that."

They presented me with that quarantine. As I said before, I asked for an attorney's advice.

Mr. POAGE. Did your attorney discuss with them the necessity of bringing back sheep that had never been on the farm?

Mr. HELMS. Yes. The quarantine says "all sheep owned."

Mr. POAGE. I understand. I read this all right.

I am asking you, did you and your attorney discuss it with the representatives of the Department, the return of sheep that had not been on the farm?

Do not simply nod. Answer for the reporter.

Mr. HELMS. Yes, sir.

Mr. POAGE. When and with whom?

Mr. HELMS. The attorney was Mr. Allen Dixon.

Mr. POAGE. Who represented the Department?

Mr. HELMS. Mr. Evans that signed the quarantine.

Mr. POAGE. He signed it? I see it.

Mr. HELMS. Mr. Shultz.

Mr. POAGE. He signed it for the State, and Mr. Evans for the USDA?

Mr. HELMS. Yes.

Mr. POAGE. This is written on the form of the State department of agriculture, but Mr. Evans signed it as the USDA representative?

Mr. HELMS. Yes.

Mr. POAGE. You are telling this committee that you did discuss the question of whether or not you had to bring sheep back which had not been on the farm, and they told you you did have to do it?

Mr. HELMS. All sheep.

Mr. POAGE. Did they give you any reason?

You of course asked them why you should return sheep that had never been on the farm?

Mr. HELMS. He said "all sheep owned" by me.

Mr. POAGE. I understand it says that.

Did they give you any reason as to why they thought it should be done.

Mr. HELMS. They would be guaranteed.

Mr. OLSON. In fairness to the way it reads, I suppose it could be assumed you could own some sheep that had never been on your farm that might be related to your flock, but I do believe there is a lack of explanation here of what that quarantine should mean, or perhaps there is some misunderstanding.

There are certainly some factors here that have not been presented properly; it is a real ridiculous situation to bring back animals that had never been on the farm, or were not related by blood. They could have been related to a flock in question. So the quarantine could be interpreted to cover a situation where they were directly related and had come off the farm.

But it certainly should be the Department's intention, and everyone connected, that sheep that were not related should not be held. This is an obvious injustice.

Dr. ANDERSON. We will be very happy to search the files in Illinois and furnish the committee with a report of this case.

Mr. POAGE. We would like to have it. We would like to know why your representative suggested they needed to bring sheep back that had never been on the farm and not related to the sheep that were supposed to have the disease.

(The information requested above follows:)

COMMENTS CONCERNING STATEMENT BY ALVIN L. HELMS

A hearing in regard to Alvin L. Helms et al., versus Governor William Stratton et al. (Illinois No. 60 1221) was held on October 14, 1960, before the circuit court of St. Clair County, Ill. On October 21, 1960, the circuit court issued an order remanding the case to the Department of Agriculture of the State of Illinois for an administrative hearing.

The hearing was begun on December 29, 1960. The hearing official was Howard White. Other interested principals included plaintiff, Alvin L. Helms; his attorney, Mr. Alan Dixon; attorneys representing the defendant, Mr. Edward Pree, Sr., and Mr. Edward Pree, Jr. Principal witnesses were Mr. Charles C. Adams, Sr., and Mr. Charles C. Adams, Jr., of Clatskanie, Oreg.

Testimony and evidence presented included the Illinois official health certificate No. 32585, dated August 20, 1959, signed by Dr. H. J. Schlesinger, which accompanied the crated ram from Belleville, Ill., to Oregon; carbon copy of the bank money order for \$150 as payment to Mr. Alvin L. Helms; original copy of the receipt for payment of Railway Express shipping charges paid by Mr. Adams; photostatic copy of Railway Express waybill signed by Mr. Adams, indicating receipt of the ram; certificate of registry from the American Cheviot Sheep Society, Inc., for ram Helms 1098, 83443 signed by Mr. Helms indicating transfer of registry to Charles Adams, Jr.; and that the scrapie-infected animal carried ear tag No. 1098 identifying him as the Helms ram concerned.

The finding of the hearing was that the scrapie-infected ram in the Adams flock in Oregon was, in fact, the one purchased from Alvin L. Helms, Belleville, Ill. This ram left the Helms flock in September 1959 and was showing symptoms of scrapie in December 1959 in the Adams flock in Oregon.

That the Helms flock was serving as a scrapie source flock was further borne out when Helms ewe 1077 No. 89944 was found in February 1961 to have scrapie in the Spencer J. Hopt flock, and Helms ram 1116 No. 83365 was found to have scrapie in May 1961 in the flock of Richard Allen. Both of these flocks were in Illinois.

There were 268 sheep and 6 goats owned by Mr. Helms and 21 sheep owned by John Tolan which were slaughtered on or about January 24, 1962. Total appraisal was \$32,195. Mr. Helms arranged for the sheep to be slaughtered at Swift & Co., St. Louis. The salvage value at slaughter was \$1,383. Indemnity paid was \$15,075 on the part of the Federal Government and \$15,737 on the part of the State of Illinois. Thus, full appraised value of his sheep was realized by Mr. Helms.

During the subcommittee meeting held on July 31, 1963, we understood Mr. Helms to say that regulatory employees had instructed him to bring all sheep he owned and place them with his flock at Belleville, including even those which had never been on his farm. We have been unable to substantiate this. On the contrary, our review of all the registration certificates Mr. Helms presented in order to obtain indemnity on a purebred basis, only 10 sheep are recorded as having been bred by someone other than Mr. Helms. Of these 10, 3 rams were bred in Illinois and transferred to Mr. Helms on July 1, 1960; an Iowa ram was

transferred on July 16, 1960; 3 Illinois ewes were transferred on January 9 and July 1, 1960; a Kentucky ewe was transferred on June 9 and an Illinois ewe on July 25, 1960; and the 10th, an Oxford ram from Illinois, was transferred on December 8, 1961.

Inasmuch as the Helms flock was quarantined on August 3, 1960, only the Oxford ram is recorded as being transferred to him after that date. We believe that if Mr. Helms added any sheep to his flock, other than those previously removed from the flock, he did so of his own choosing. It appears also that the Illinois Department of Agriculture quarantine specified that Helms-owned sheep be returned to the Helms flock, not that sheep never having been there be added to the flock.

We note also that in the agreement for disposition of the court case filed the 19th day of January 1962, in the circuit court of St. Clair County, Ill., it was agreed that the sale price of the Helms flock should be \$36,000 with Mr. Helms to retain the carcasses of sheep slaughtered. Therefore, the State of Illinois made an additional payment of \$5,187.77 to Mr. Helms.

When on Monday, August 8, 1960, regulatory employees visited the Helms farm to identify his sheep, they were told about five Southdown sheep on the farm that Mr. Helms did not own. They learned later that these five sheep actually belonged to Mrs. Alvin Helms. We do not know why Mr. Helms would say that he was told to bring these sheep to the farm or when he actually brought them there.

Mr. MORRISON. In late 1952, or early 1953, I sold two purebred ram lambs, Suffolk lambs, to Mr. George Litson.

In 1956 two or three Federal veterinarians came to my farm and told me the two rams that I had sold Mr. Litson in 1952 or 1953 had been diagnosed as having scrapie, and my flock was now on quarantine. That was almost 3 years since those lambs went away from my place.

There again, trying to cooperate and do what is right, I accepted the quarantine. After all, when the Federal people walk in your place, who is greater than the U.S. Government.

They sent my 131 Suffolk sheep to slaughter. I was reimbursed for it. Whoever proved to me that those lambs that had been off my place 2 or 3 years could come back and say, you have scrapie in your flock, and not a one of my sheep showed any sign of illness at all. That is how ridiculous it is.

I would like to say to all members, I have tried to diagnose scrapie and learn something about it.

Dr. HOURRIGAN. If I could say one thing.

There have been several other flocks in which Morrison's sheep have had scrapie.

Mr. LINN. I would like to make a couple of brief statements for the record.

One is in regard to Dr. Parry. I do not think the record is going to quite show the situation in Great Britain. The appropriate people to answer questions about Dr. Parry would be Dr. Parry, or me. His reference to the general situation in Great Britain is that scrapie, after 250 years, remains, as it always has, practically insignificant when it comes to a matter of importance to the sheep industry, and only very, very occasionally does any breeder suffer any losses of any economic significance.

That I think is a better statement of the true situation as far as Dr. Parry is concerned.

Another comment I want to make.

You asked in regard to the commercial sheep. I do not believe there is any good reason to pay indemnity on sheep going to slaughter anyhow. A purebred is an entirely different thing. There is a stigma attached and they are in a different category.

As a matter of practicability, as far as contagion is concerned, the weight in the field is overwhelming on the side of Dr. Parry's theory of genetics. There are many items hard to explain except on that basis.

I would leave it up to your judgment, there are a multimillion contacts of the past 10 years with scrapie, and with the sheep population of the rest of the country and the goats, and yet only these two breeds have come down with scrapie.

Mr. POAGE. This thing opens it up to so many thoughts and questions. We have already devoted more time than the committee had assigned to it. Some of us have missed appointments in doing so. We have been interested in your presentation.

I must ask the scientists, how did you determine this incubation period of 42 months.

Dr. HOURRIGAN. Part, Mr. Chairman, is based on the age of sheep to come down with the disease. Most animals that are going to come down with scrapie do so at 3 years, or 36 months, of age. There are those that come down at more advanced age, up to 9 years, which is about as old as a sheep lives. They can come down any time during their lives.

A sheep that comes down at 36 months of age quite obviously her exposure could not have been much greater than her age.

Research work by Dr. Gordon and Dr. Stamp on how long it took animals to come down with scrapie, not only after they were inoculated, but in the case of goats, showed they started coming down at 42 months of age.

Mr. POAGE. That does not seem to prove anything. Perhaps I am not sensitive enough.

Mr. Morrison sent these two ewes out and 2 years later they developed scrapie. I thought you agreed there was something to this genetic approach. You said it did not cause the disease, but caused susceptibility.

I think if we agree there is an inherited susceptibility, it must then follow those animals that have the greater susceptibility from a genetic standpoint would probably at a later date be exposed to the virus. Every sheep in the world may be exposed to the virus and obviously very few of them are affected by it. It might well be that those that have the genetic susceptibility would become victims of the virus at a later date. But it would have nothing in the world to do with them having been exposed to it 3 years before.

The average man who dies of lung cancer is about 55 years old, but you would not tell me that he contracted that lung cancer when he was a baby and there was an incubation period of 55 years; would you?

Dr. HOURRIGAN. Could be.

Dr. ANDERSON. We will be glad to give you a detailed statement on the incubation period of scrapie.

(The statement referred to follows:)

STATEMENT ON 42-MONTH INCUBATION PERIOD OF SCRAPIE

In April 1957, the scrapie eradication program procedures were broadened to include, among other things, an increase from 36 to 42 months for the period of surveillance inspections of flocks from which exposed sheep and/or their immediate progeny were removed. Several States had previously found it necessary to adopt these procedures and had done so. The action was based on the experience with the disease in the United States. Scrapie had appeared between the known extremes of 3 and 43 months after last known natural exposure. Most of the infected sheep had shown symptoms 10 to 34 months after last known natural exposure.

Since the eradication program was broadened in April 1957, transmission studies conducted at the various institutions engaged in scrapie research and actual field experience with naturally occurring cases of scrapie in this country have given additional support for the 42-month incubation period. The attached copies of ARS 91-8, "Symptoms of Scrapie in Sheep," dated February 1959, provides additional information relative to the incubation period.

Mr. POAGE. The committee would like to have a detailed statement on it. It is a far-reaching proposition.

Mr. MARSH. I did file a statement for the record on H.R. 4217, on which the hearing has been held this morning. I must say I am a little amazed at the turn of the testimony. I thought this was a bill to provide full indemnity.

Mr. POAGE. That is what the bill is.

Actually, the sheep people want a different kind of relief in my opinion.

Mr. MARSH. I did not know this slaughter program was coming up for discussion here. If it is, I think that a bill ought to be introduced, and everyone should have an opportunity to testify.

There was a statement made here that the sheepmen apparently do not like this slaughter program. I do not believe that is true for the majority.

I know in our own organization we have passed many resolutions supporting this slaughter program. I have heard the statement made many times here this morning until we know more about this, and that is the position we have taken, until we know more about it we think we need some kind of control. We have, therefore, gone along with the U.S. Department of Agriculture program. Perhaps it needs some modification.

Certainly that should come out in a hearing on a bill that would cover it, which in my opinion H.R. 4217 does not.

That is about all I have to say.

Mr. POAGE. Thank you very much.

Is there anyone else here who desires to be heard?

If not, we are very much obligated to all of you for appearing, both for and against this bill.

We will appreciate it if the Department will give us additional information. We assure you we are interested in your problem. We do not now have the answers to it. I do not believe placing the financial burden on the Government is the way to go after it. I think you have a problem here.

(The additional information requested follows:)

SCRAPIE INDEMNITY

Indemnities are paid for slaughtered sheep in accordance with Federal and State regulations. Federal indemnity does not exceed 50 percent of the difference between appraisal and net salvage value of each animal. It is limited to \$25 a head for grade and \$75 a head for purebred sheep. During the period fiscal year 1953 through 1962, a total of 60,952 sheep in 44 States were slaughtered involving 2,586 claims.

Federal-State indemnities have been paid in 30 States and Federal indemnity alone in 14 States. Amounts for the period 1953-62 have been as follows:

Remarks	Number of States	Indemnity		
		Federal	State	Total
Equal indemnity.....	7	\$8,250	\$8,250	\$16,500
Federal exceeded State indemnity.....	15	412,675	153,460	566,135
State exceeded Federal indemnity.....	8	717,382	867,915	1,585,297
No State indemnity.....	14	514,662	-----	514,662
Total.....	44	1,652,969	1,029,625	2,682,594

The Department cooperates with the various States in programs of livestock disease control and eradication according to mutually agreed on procedures.

A feature of some of these cooperative programs is the payment of indemnities for animals where their destruction is deemed necessary to break the chain of spread of disease.

The purpose of indemnity is to assist the owner in bearing loss and to facilitate the immediate disposal of affected and exposed animals, thus helping to prevent spread of disease. We recognize that the owners in many cases experience losses that are not fully covered by indemnity; however, it is also in our own interests to eradicate animal diseases. We have found that with the three parties—State, Federal, and the owners—each sharing in the cost, there is usually effective cooperation and support in carrying out procedures necessary in eradicating the disease. This long-established cooperative State-Federal-owner relationship has proven very successful in eradicating livestock diseases from this country.

Various production, marketing, and economic factors are taken into consideration in establishing maximum indemnity payments. For instance, in the cooperative tuberculosis and brucellosis eradication programs which provide for indemnity payments, in most cases there is a considerable return to the producer in the form of salvage payments. Because of the nature of these diseases, animals reacting to the diagnostic test are shipped for slaughter and substantial parts of the carcasses salvaged for use.

Owners of reactors are paid not more than one-third of the difference between the appraised value and salvage received, not to exceed \$25 for grade and \$50 for purebred animals destroyed. Payments for tuberculosis reactors are contingent upon the States paying an equal amount. The owner in this instance would assume one-third of the loss, or more if the value of the animals exceeds the limitation of Federal and State payments.

Cattle condemned because of tuberculosis and brucellosis are appraised individually. The 1962 average appraisal for cattle condemned because of tuberculosis was \$329.40. Average salvage received was \$128.03, or about 39 percent of the appraised value.

In the case of sheep destroyed on account of scrapie, salvage has been much lower. Sheep destroyed because of scrapie must be sold in designated markets. Sheep may be appraised individually or in groups because of differences in marketing practices. Average salvage is very low except for commercial sheep sold as lambs. There is little salvage for older breeding sheep due to the limited market for mutton. Most purebred sheep are older animals and would be sold for mutton.

The following table compares the average salvage returns (1958-62) with average appraisals and indemnities in the cooperative tuberculosis, brucellosis, and scrapie eradication program.

	Appraisal	Salvage	Indemnity		
			Federal	State	Total
Tuberculosis.....	\$333.16	\$140.81	\$26.42	\$38.61	\$65.03
Brucellosis.....	286.89	126.67	22.19	22.30	44.19
Scrapie.....	94.64	6.74	36.89	28.11	65.00

THE ERADICATION PROGRAM

Ordinary methods used by shepherds of eliminating the sick animals and their progeny were reviewed and rejected on the basis that, as Dr. Saurat in France indicated, these measures are not useless but are insufficient to eradicate the disease. The eradication program that is now being followed is similar to that in effect in Canada and to the programs followed in Australia and New Zealand. The latter two countries believe they have eradicated scrapie using such a program.

The eradication program developed, like others in our country, was a cooperative one with both State and Federal governments participating. It provides for the immediate slaughter of all sheep in infected flocks as well as exposed sheep moved from infected flocks and their immediate progeny. Indemnities are available to owners whose sheep are slaughtered under the program. Many commercial lambs destined to go to slaughter anyway are sold to commercial slaughter with no indemnity paid. Source flocks—those found with good cause to be disseminating the disease but in which no infected sheep have been demonstrated—are handled in the same manner as infected flocks. It was found necessary to give particular attention to source flocks as they were the principal cause of additional outbreaks. One particular flock in Indiana was responsible for 15 scrapie outbreaks in 4 States. There are other examples of how quickly the disease can spread into other flocks and other States. Like all established ADE programs in the United States, the scrapie eradication program is a State-Federal cooperative one with each agency having a basic responsibility. The eradication program is conducted under a memorandum of understanding between the U.S. Department of Agriculture and each State.

NATURE OF THE DISEASE

Scrapie is an insidious transmissible disease of sheep having an unusually long period of incubation—18 to 42 months or more—characterized as a disorder of the central nervous system. Symptoms include itching and rubbing of the skin, tremors, and incoordination. Infected animals die after showing symptoms 6 weeks to 6 months or longer. No treatment or vaccine is effective.

NUMBER OF CASES IN INFECTED FLOCKS

Dr. Parry indicates that the flock incidence of scrapie—i.e., the number affected per 100 breeding females per year—varied widely from flock to flock even of the same breed and from year to year. Many flocks may be considered as free—i.e., no manifestation for 5 years—in many the incidence is low (1 to 3 percent) or sporadic (1 percent), in some it is medium (4 to 10 percent) and in a few flocks it is high (10 percent) and may exceed 20 percent. He goes on to say that in a particular flock 75 percent of the lamb crop eventually died of scrapie. It can be, and in some areas has been, a decimating disease forcing disposal of the remaining sheep in the flock. Dr. Parry indicated that losses are such that scrapie is a problem that one must do something about and that the disease can't be allowed to go unchecked.

ESTABLISHMENT AND DEVELOPMENT OF THE SCRAPIE ERADICATION PROGRAM

The scrapie eradication program came into being on October 31, 1952, when the Secretary of Agriculture declared an emergency permitting the Department to take measures in cooperation with State authorities directed toward eradicating the disease.

This action was taken following an outbreak of scrapie (recognized on or about September 11, 1952) in two California flocks and consultations among industry representatives and regulatory and research workers. The following particulars are of general interest:

On October 16, 1952, the California Department of Agriculture had requested that the two departments enter into an immediate cooperative arrangement to participate in the expense involved in indemnifying owners of the animals to be destroyed. On October 24, Mr. W. P. Wing, secretary of the California Wool Growers Association, had wired the Secretary strongly urging immediate favorable consideration for Federal participation including indemnity payments cooperatively with the State of California in the present emergency. On October 29, Dr. R. A. Hendershott, secretary and treasurer of the United States Livestock Sanitary Association, had wired urgently requesting that the Department enter into immediate cooperative arrangements in the cost involved in the eradication of scrapie, stating that scrapie is a threat to the livestock industry and it would be economically unwise and ultimately prove to be extremely costly if this disease is permitted to become established among the sheep of this Nation. This wire expressed the recommendation of the association then holding its annual meeting at Louisville, Ky. On October 29, Dr. J. M. Jones, secretary, National Wool Growers Association, had written that association considered the outbreak of sufficient importance that the matter should be handled with as little delay as possible and that proper action should be taken to immediately eliminate it by slaughter and indemnification to the owner of these animals as has been done with foot-and-mouth disease in the past. On November 17, a resolution of the Joint Legislative Committee on Agriculture and Livestock Problems, California Legislature, asked the Secretary to cooperate with the States to properly compensate an owner of purebred breeding animals upon a replacement value basis when emergency action requires their destruction.

The two methods used to control the disease were considered—one being to increase the resistance of the animals which might be exposed and the other to minimize opportunities for exposure. The program was developed around the latter, there being no encouragement that a vaccine to increase resistance might be in the offing. It was appreciated that resistance to disease can be developed genetically by developing more resistant strains of animals; however, this required considerable time and in the case of scrapie, if more resistant sheep could be developed they might well not be the most desirable animals from a meat or wool standpoint. The State-Federal cooperative program developed through the consultation with British, French, Canadian, and American research and regulatory workers, reviews of research work, and through many State and National meetings of members of the sheep industry and other interested persons and organizations.

Meetings of note include the following:

Annual meeting of United States Livestock Sanitary Association in October 1953, Louisville, Ky. Meeting of research workers to discuss the problem of scrapie in the United States, April 1954, Washington, D.C. Meeting of members of the sheep industry and livestock sanitary officials to discuss scrapie, May 1954, Washington, D.C. Meeting of research workers, Department and State livestock sanitary officials and Canadian officials, May 1956, Washington, D.C. Meeting of the Suffolk Sheep Association, representatives of other sheep associations, and regulatory officials, August 1956, St. Louis, Mo. Meeting of consultants for consideration of eradication program and research needed, November 1956, Washington, D.C. Meeting of board of directors of National Suffolk Sheep Association and regulatory and research representatives, July 1958, Washington, D.C. Scrapie Study Group, consisting of a member of the sheep industry, a research worker, a dean of a veterinary college, and regulatory representatives,

November 1958, held meetings in Washington, D.C.; Columbus, Ohio; Indianapolis, Ind.; Springfield, Ill.; Salt Lake City, Utah; and Sacramento, Calif. Meeting of Canadian and United States regulatory officials to discuss scrapie, November 1959, Ottawa, Canada. Scrapie Research Group, consisting of an international panel of scrapie specialists including Dr. W. S. Gordon from England and Dr. J. T. Stamp from Scotland, November and December 1959, appeared before meetings at Washington, D.C.; Chicago, Ill.; Purdue University, Lafayette, Ind.; Ohio State University, Columbus, Ohio; Denver, Colo.; and Sacramento, Davis, and San Francisco, Calif., where the panel appeared on the program of the USLSA. Members of the panel also appeared before a meeting of Canadian sheepmen at Lethbridge, Alberta.

In order to keep abreast of European scrapie research work, Federal and State representatives have visited institutions in Great Britain and France. Research work was reviewed in July 1956 in England and France; in England, Scotland, and France in 1957; in England, Scotland, and France in July and August 1958; and in England, Scotland, and France in July 1959.

The Department's Animal Disease and Parasite Research Division had a veterinary neuropathologist doing scrapie research work with Dr. W. S. Gordon at Compton, England, from April 1958 to March 1961.

A veterinarian from the University of California did scrapie research (under an NIH grant) at Cambridge University in England from about May 1958 to May 1959. The Department also took advantage of opportunities offered when research workers from other countries visited the United States. The Department made arrangements for a lecture on March 23, 1962, by Dr. H. B. Parry, veterinarian affiliated with the Nuffield Institute for Medical Research, Oxford University, Oxford, England, who spoke in Washington, D.C., to animal, poultry, and plant geneticists and biologists. The Department also arranged for a lecture on April 19, 1962, by Dr. A. G. Dickinson, Senior Scientific Officer, Agricultural Research Council of Great Britain, to speak in Washington, D.C. The Department arranged for Dr. Richard L. Chandler, principal scientific officer, Agricultural Research Council, to speak on June 20, 1962, and for Dr. I. H. Pattison, another Agricultural Research Council research worker, to speak on April 8, 1962. These talks on scrapie research were held at Washington, D.C., although these research workers also lectured at other points in the country.

Mr. PoAGE. The committee will stand adjourned.

(Whereupon, at 12:15 p.m. the committee adjourned.)



THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., U.S.A.
Subscription price, Five Dollars per Annum in Advance.
Single Copies, Fifteen Cents.
Entered as Second-Class Matter, May 2, 1912.
Postpaid.
Acceptance for mailing at special rate of postage provided for in Act of October 3, 1917.
Paid for postage by the American Medical Association.
Copyright, 1917, by American Medical Association.
Printed at the Chicago Press and Publishing Co., Chicago, Ill.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., U.S.A.
Subscription price, Five Dollars per Annum in Advance.
Single Copies, Fifteen Cents.
Entered as Second-Class Matter, May 2, 1912.
Postpaid.
Acceptance for mailing at special rate of postage provided for in Act of October 3, 1917.
Paid for postage by the American Medical Association.
Copyright, 1917, by American Medical Association.
Printed at the Chicago Press and Publishing Co., Chicago, Ill.

