

18586 115608

BY THE U.S. GENERAL ACCOUNTING OFFICE

## Report To The Secretary Of Agriculture

# Weak Management In Animal Disease Control Program Results In Large Economic Losses

Brucellosis, a major problem to beef and dairy producers, is a disease which attacks the reproductive system of livestock, causing abortion, slow breeding, and sterility. Each year livestock producers lose millions of dollars because of animal disease outbreaks and the lack of control over certain pests. Since the brucellosis eradication program started in 1935, Federal, State, and industry control efforts have cost over \$2 billion. This is the Nation's largest animal disease control effort, and GAO's review of the program showed weaknesses in management systems and disease identification and control procedures that have delayed eradication efforts and resulted in large economic losses to the farm economy.

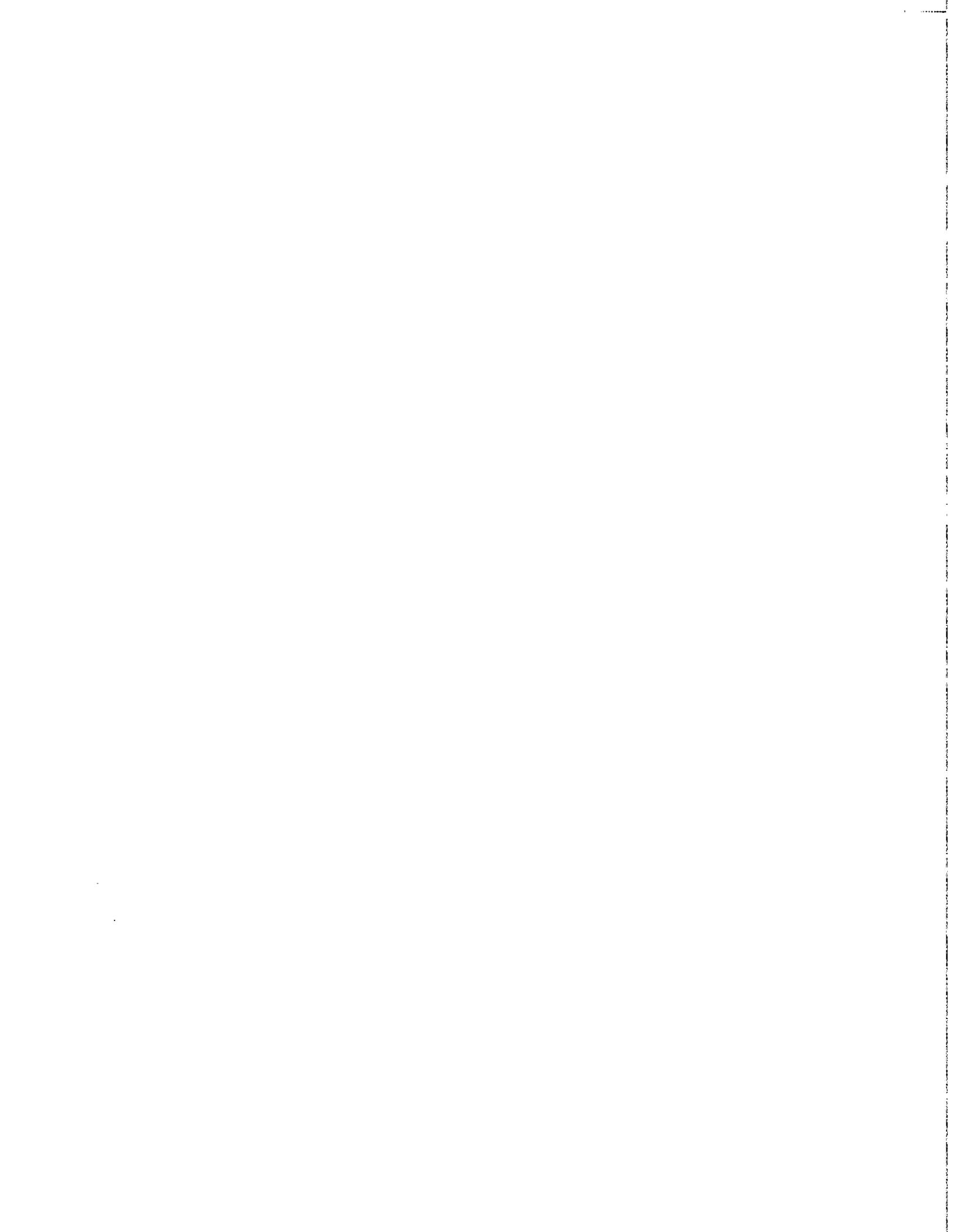
Ineffective procedures for identifying infection in animals moved interstate have also contributed to the spread of brucellosis from States with a high incidence of infected herds.

GAO recommends that the Department of Agriculture take a number of actions to strengthen animal disease control regulations and improve enforcement efforts.



CED-81-96  
JUNE 24, 1981

017365





UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

COMMUNITY AND ECONOMIC  
DEVELOPMENT DIVISION

B-203585

The Honorable John R. Block  
The Secretary of Agriculture

Dear Mr. Secretary:

This report summarizes the results of our review of the Department's animal disease control efforts. Our work was concentrated on the Veterinary Services' brucellosis eradication program.

Because the program has been operating for so long--the commitment to eradicate was made in 1954--we made this review to determine whether improvements could be made.

The report contains recommendations to you on pages 22, 32, and 33. As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to interested congressional committees and members; the Congressional Budget Office; the Congressional Research Service; the Congressional Rural Caucus; the cooperative State agencies; and the Director, Office of Management and Budget. We are also sending copies to your Office of Inspector General; Office of Operations and Finance; Animal and Plant Health Inspection Service; and Veterinary Services.

Sincerely yours,

A handwritten signature in cursive script that reads "Henry Eschwege".

Henry Eschwege  
Director



D I G E S T

The Veterinary Services unit of the Department of Agriculture's Animal and Plant Health Inspection Service has been successful in preventing the introduction of some foreign animal diseases and making progress in eradicating many domestic diseases. Still, each year livestock producers lose millions of dollars because of animal disease outbreaks and the lack of control over certain pests. These losses must either be borne by the producers or passed on to consumers in the form of higher food prices.

GAO's review showed that weaknesses in management systems and disease control procedures have delayed eradication efforts and resulted in large economic losses to the farm economy.

In fiscal year 1981 Veterinary Services will spend about \$169 million to protect animals from diseases and pests. Seventeen programs are conducted to keep communicable diseases and pests of foreign origin from entering this country and to prevent the spread of infections now plaguing the Nation's agriculture. One of these is the brucellosis eradication program on which GAO concentrated its review. (See app. I.)

Brucellosis, a major problem to beef and dairy producers, is a disease which attacks the reproductive system of livestock, causing abortion, slow breeding, and sterility. The estimated annual loss to the livestock industry is \$35 to \$40 million. Of Veterinary Services' budget authority of \$114 million for domestic animal disease control for fiscal year 1981, about \$81 million was for the brucellosis program. Since the program started in 1935, Federal, State, and industry control efforts have cost over \$2 billion. (See pp. 1 to 6.)

WEAKNESSES IN MANAGEMENT SYSTEMS

Progress on Veterinary Services' major domestic disease control program--brucellosis eradication--has been impeded because several disease control

measures have not been implemented effectively. GAO found that:

- Some animals sold at livestock markets and identified as infected could not be traced to their herds 1/ of origin because of inadequate control over the collection of ownership information and the identification tagging of animals. (See pp. 8 to 10.)
- Herds were not always tested timely to assure that infection was expeditiously identified. Available data in the four States GAO studied showed that over 50 percent of the herds had not been tested or retested within the recommended times after infection was suspected and detected. (See pp. 11 and 12.)
- Controls were not always used to make sure that all animals in quarantined herds were accounted for from test to test so that any infection was identified as quickly as possible and that exposed animals were prevented from being moved to other herds. (See pp. 12 to 15.)
- Field personnel had not always followed procedures to locate herds exposed to disease by cattle purchased from herds subsequently found to be infected. Only one of the four State programs GAO examined used procedures to minimize this cause of disease spread. (See pp. 15 and 16.)

Veterinary Services field personnel often attributed these operational shortcomings to lack of industry cooperation or personnel shortages. However, GAO found that weaknesses in the management systems were a primary cause of ineffective implementation of disease control measures. The management systems do not provide assurance that field personnel and each organizational unit know what is expected of them in implementing these measures nor do they provide guidance for measuring performance regarding these expectations.

---

1/A herd is comprised of all cattle under common ownership or supervision that are grouped on one or more parts of any single lot, farm, or ranch.

GAO found that:

- Adequate written instructions on how to perform disease control measures were not provided to field personnel. (See pp. 10 and 14.)
- Goals were not established for each organizational unit to show field personnel, managers, and supervisors what was expected of them in implementing disease control measures. Managers and supervisors were not evaluated on how well they implement these measures. (See p. 16.)
- Although basic documentation was available on work done, this information was not collected and analyzed to determine if work was performed properly and to measure progress toward program goals for field organizations within the States. (See pp. 17 to 19.)
- Agreements with State agencies do not clearly define authority and responsibility of Federal and State personnel. The agreements merely provide that the States will furnish a given number of work years of effort and that Veterinary Services will pay a certain amount of the costs. (See pp. 19 to 21.)

#### Recommendations

The Secretary of Agriculture should direct the Administrator, Animal and Plant Health Inspection Service, to take a number of actions to improve Veterinary Services' management systems, including (1) instructions to field personnel on proper implementation of disease control measures, (2) goals which emphasize improved implementation of disease control measures, (3) an information system which collects and analyzes data to measure each organizational unit's performance and progress in implementing disease control measures, and (4) clear lines of authority and responsibility for field operations. (See p. 22.)

#### INEFFECTIVE AND UNENFORCED REGULATIONS FRUSTRATE DISEASE ERADICATION EFFORTS

Ineffective procedures for identifying infection in animals moved interstate have contributed to

the spread of brucellosis from high- to low-incidence States. During fiscal year 1980 the number of infected herds increased in 19 low-incidence States, 3 of which had begun the year free of the disease. (See app. III.)

Although Veterinary Services adopted improved procedures in 1979, testing requirements are still not adequate to prevent the spread of diseases through interstate movement of infected animals. Veterinary Services has not collected data to formulate the best test requirements in terms of cost and effectiveness. (See p. 24.)

Veterinary Services has established uniform methods and rules which recommend that States enact provisions enabling them to trace animal ownership through dealer transactions. However, some States have not enacted these provisions because of local opposition. Veterinary Services has limited authority to persuade States to enact and implement the necessary record-keeping provisions because no requirement exists that States do so and there is no penalty if they do not. (See pp. 25 and 26.)

Veterinary Services' enforcement of disease control regulations has not been an effective deterrent because of untimely investigations and ineffective penalties. For the 51 cases GAO examined, enforcement actions generally took about 19 months to complete and, in the few cases where violators were penalized, only nominal fines were imposed. GAO found that investigations were untimely because strong central direction and coordination was not provided to expedite investigations. Also, suspected violations can be pursued only through criminal prosecution and such action has not produced penalties commensurate with the violations. Agriculture submitted to the 96th Congress a legislative proposal that would have authorized civil penalties, but no action was taken. (See pp. 26 to 29.)

Veterinary Services personnel believe that another primary cause of the spread of brucellosis is false health certifications by private veterinarians. Because these certified animals have been exposed to disease, some may be incubating infection and, if they are sold, other herds may be infected. Veterinary Services has

not effectively used available information to monitor the accuracy of animal health certifications by private veterinarians nor has it properly aligned its enforcement personnel to assure that cases are investigated by those with sufficient training and experience. (See pp. 29 to 31.)

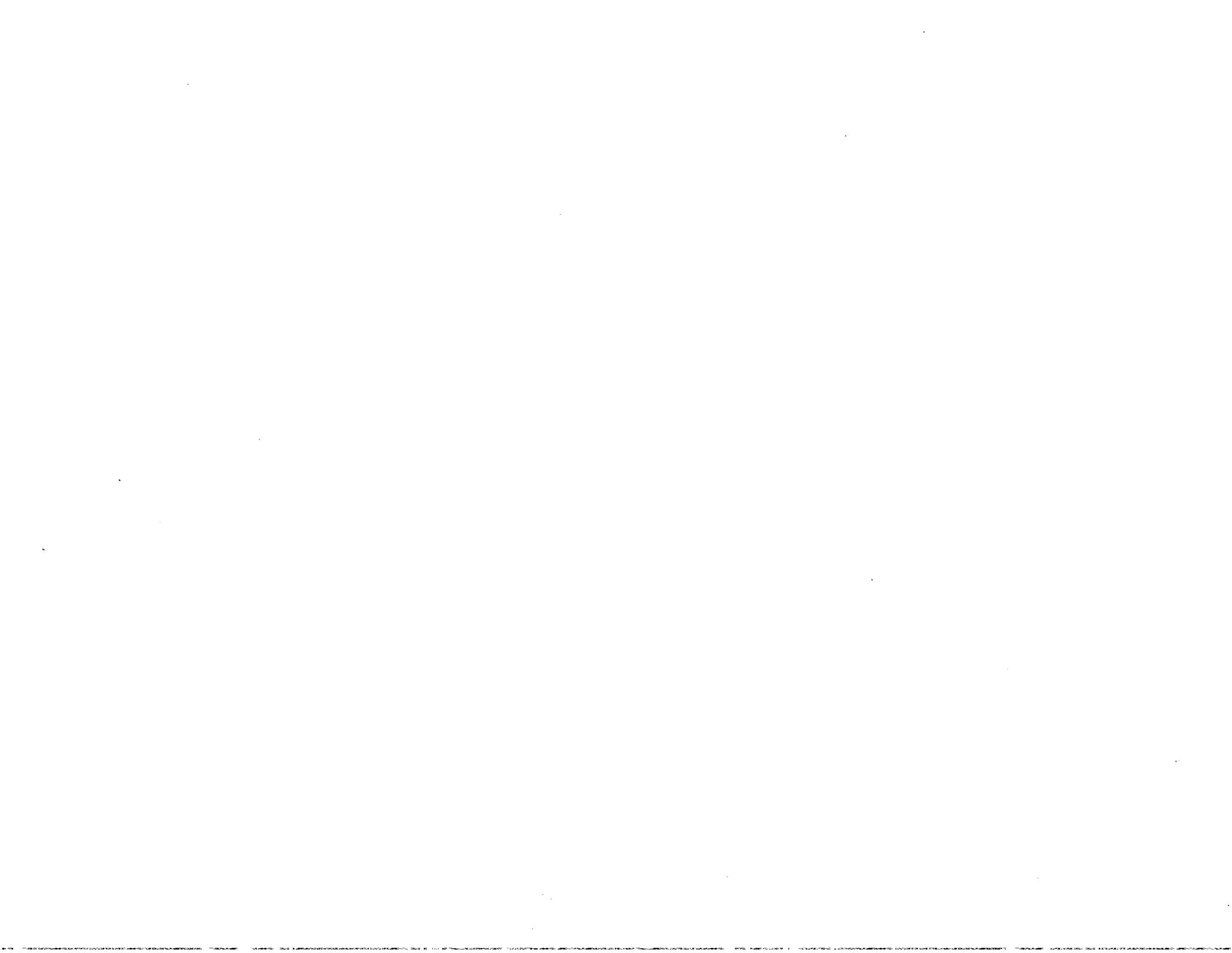
### Recommendations

The Secretary of Agriculture should direct the Administrator, Animal and Plant Health Inspection Service, to strengthen animal disease control regulations and improve enforcement efforts by taking action to (1) collect and analyze information on the cost and effectiveness of brucellosis testing requirements for interstate movements, (2) consider the effectiveness of dealer recordkeeping provisions in certifying a State's animal disease status, (3) realign the enforcement work force to provide stronger central direction and coordination and assign personnel with the necessary training and experience to pursue improper health certification cases, and (4) resubmit to the Congress the legislative proposal authorizing civil penalties. (See pp. 32 and 33.)

### AGENCY AND STATE COMMENTS AND GAO EVALUATION

GAO requested the Department of Agriculture and the pertinent State agencies in Florida, Kansas, Mississippi, and Texas to comment on a draft of this report. GAO received comments from the Department and from Mississippi and Texas. These comments indicated general agreement with most of the issues discussed but pointed out some areas which they felt were unclear, misleading, or inaccurate. GAO made appropriate changes in the report.

The Department said that most of GAO's recommendations cover problems which it had already identified and that corrective procedures had already been adopted or were being developed. The Department did not agree with some of GAO's recommendations. GAO evaluated the Department's comments and continues to believe that its recommendations are valid. (See pp. 33 and 34.)



# C o n t e n t s

		<u>Page</u>
DIGEST		i
CHAPTER		
1	INTRODUCTION	1
	Brucellosis eradication is the major domestic program	1
	Program responsibility shared with cooperating State agencies	3
	Objectives, scope, and methodology	5
	Agency and State comments	6
2	IMPROVEMENTS NEEDED IN MANAGEMENT SYSTEMS	7
	Better control is needed at live- stock markets over collection of ownership information	8
	Timeliness of herd tests needs to be improved for more successful disease eradication	11
	Accountability for animals tested needs to be improved to minimize disease proliferation	12
	More emphasis should be placed on locating exposed animals sold before quarantine	15
	Goals are needed to encourage im- proved implementation of disease control measures	16
	Better information system needed to assess performance and measure progress	17
	Cooperative agreements need to clearly define authority and responsibility of Federal and State personnel	19
	Comments on the need for improved management systems	21
	Conclusions	21
	Recommendations to the Secretary of Agriculture	22
	Agency comments	22
3	INEFFECTIVE AND UNENFORCED REGULATIONS FRUSTRATE DISEASE ERADICATION EFFORTS	23
	Testing of animals moved interstate needs to include the disease incubation period	24

**CHAPTER**

3	Stronger provisions are needed to assure that dealers follow good recordkeeping practices	25
	More timely enforcement actions and appropriate penalties are needed	26
	Untimely investigations	27
	Penalties are not commensurate with violations	28
	Special efforts are needed to discourage false certifications on animal health	29
	Conclusions	31
	Recommendations to the Secretary of Agriculture	32
	Agency comments and our evaluation	33

**APPENDIX**

I	Veterinary Services' animal health budget authority for fiscal year 1981	35
II	Veterinary Services' brucellosis budget authority for fiscal year 1981	36
III	Herds quarantined because of brucellosis	37
IV	Veterinary Services regions	38
V	Letter dated April 24, 1981, from the Administrator, Animal and Plant Health Inspection Service	39
VI	Letter dated April 29, 1981, from the State Veterinarian, Mississippi	46
VII	Letter dated May 6, 1981, from the Executive Director, Texas Animal Health Commission	48

ABBREVIATIONS

GAO	General Accounting Office
UM&R	Uniform Methods and Rules
USDA	U.S. Department of Agriculture
VMO	veterinary medical officer

## CHAPTER 1

### INTRODUCTION

Each year the livestock industry loses millions of dollars because of animal disease outbreaks and the lack of control over pests. The U.S. Department of Agriculture (USDA) plans to spend about \$114 million in fiscal year 1981 for domestic animal health programs and another \$57 million to prevent the introduction of diseases from foreign countries. States also spend millions of dollars each year on animal health programs. USDA's Animal and Plant Health Inspection Service is responsible for conducting regulatory and control programs to protect and improve the Nation's animal and plant resources. The Service has two basic units: Veterinary Services and Plant Protection and Quarantine. This report discusses Veterinary Services activities.

Veterinary Services is made up of a team of 2,200 veterinarians, animal health technicians, and other professional and support personnel. It has five primary tasks: keeping foreign animal diseases out of the United States, eradicating outbreaks of diseases which get past border defenses, fighting domestic animal diseases of economic and/or human health significance, assuring safe and potent veterinary biologics, and assuring the humane care of animals. It is also responsible for preventing interstate spread of animal diseases. Animal disease control and eradication programs are to be carried out through close cooperation with State governments, the veterinary profession, and the livestock and poultry industries.

Veterinary Services has had a great deal of success in preventing the introduction of foreign diseases and in quickly eliminating those, such as Exotic Newcastle Disease, that have entered the country. Progress has also been made in combating hog cholera, tuberculosis, and other diseases which have adversely affected the farm economy. Veterinary Services' largest single program, which has continued for many years, is the brucellosis eradication program.

#### BRUCELLOSIS ERADICATION IS THE MAJOR DOMESTIC PROGRAM

Veterinary Services plans to spend about \$81 million in fiscal year 1981 on brucellosis eradication. This is about 70 percent of its fiscal year 1981 budget for domestic animal disease control programs. (See app. I.) Since the brucellosis program started in 1935, Federal, State, and industry control efforts have cost over \$2 billion. The estimated annual loss to the livestock industry is \$35 to \$40 million.

Brucellosis--a disease that attacks the reproductive system of livestock, causing abortion, slow breeding, and sterility--is a major problem to beef and dairy producers. It is also a threat to public health in that it is transmittable to humans

as undulant fever. 1/ Brucellosis is generally spread from one herd 2/ to another when infected or exposed cattle are purchased as replacement cattle. However, the infection can also spread between neighboring farms if cattle have contact through fences or use a common pasture. Contaminated clothing or equipment can also introduce brucellosis.

The incubation period of brucellosis--from the time the bacteria enters the animal's body until the disease shows itself in some way--is quite variable, thus complicating detection. A positive reaction to a blood test usually develops within 60 days of exposure, although it may take several months. Abortion usually occurs 1 to 4 months after mid-gestation exposure to brucellosis.

As the meat from brucellosis-infected animals is safe for human consumption, they are branded and sold for slaughter. Because the slaughter price is less than the value of these animals as breeding stock, Veterinary Services pays an indemnity to defray part of the owner's losses if he or she agrees to follow appropriate testing requirements to assure that the disease is eliminated from the remainder of the herd. Indemnity may also be paid to depopulate the entire herd if the level of infection indicates that it is less expensive to pay the indemnity than to continue testing and eliminating only infected animals. Veterinary Services expects to pay \$20 million for indemnity in fiscal year 1981--about 25 percent of the brucellosis program budget. (See app. II.)

In the early 1970's progress toward nationwide eradication had been made to the point that most brucellosis infection was centered in 10 contiguous Southern States. However, because of the persistence of the disease and a rising infection rate in the early 1970's, the program was accelerated in the mid-1970's and funding was increased. The first significant appropriation increase for brucellosis eradication was in 1975, and the first accelerated State programs were started in 1977. According to USDA there was very good industry support in those States where programs were accelerated. As the eradication program accelerated, however, the cattle industry in some Southern States, including Florida, Mississippi, and Texas, expressed more and more opposition to the program. It is therefore not surprising that although only about 1 percent of the Nation's herds were

---

1/A persistent bacterial disease, characterized by a recurrent fever, sweating, and pains in the joints and contracted through consumption of unpasteurized dairy products or direct contact with an infected animal.

2/A herd is comprised of all cattle under common ownership or supervision that are grouped on one or more parts of any single lot, farm, or ranch.

infected as of September 30, 1980, most of the infection was still centered in eight Southern States. (See app. III.)

In response to the acceleration of, and opposition to, the program, the Secretary of Agriculture established a task force in 1976 known as the Brucellosis Technical Commission. It was comprised of technical experts from outside USDA in the fields of animal science, agricultural economics, veterinary medicine, microbiology, and public health. The Commission was to (1) review the concept and feasibility of eradicating bovine brucellosis, (2) examine the program as then authorized and consider various alternatives, and (3) make an economic analysis of the program and alternatives. Following a 2-year study, the Commission report concluded that eradication was biologically feasible and cost effective and cooperative efforts by Government and industry to achieve eradication should continue.

The Commission found that skepticism regarding the biological or economic feasibility of brucellosis eradication was expressed primarily in areas having a high incidence of the disease. This attitude was more prevalent among beef producers than among dairy producers. Also, marketing agencies wanted fewer restrictions on animal movements to reduce interference with their opportunity to move cattle into the most profitable market. Individual producers and groups had differing views, depending on their positions in the production and marketing cycle and how they could be affected by the spread of infection. Overall, however, the majority favored brucellosis eradication.

The Commission's cost-versus-benefits study clearly showed that the eradication program was worth its costs. It was estimated that consumers would lose \$26 for every dollar reduction in costs if the program was eliminated. The estimates of net dollar benefits from the program over a 19-year period, using various program alternatives, ranged from \$295 million to \$769 million. These estimates did not include the economic benefits associated with improvement in human health attributable to a reduction in bovine brucellosis infection.

Human illness from brucellosis (undulant fever) occurs most frequently in occupational groups that are exposed to animals. Packing house employees have the highest reported incidence of undulant fever, and no successful program exists to protect them from exposure to infected animals presented for slaughter. The total number of human cases in the United States decreased from 6,321 in 1947 to 175 in 1973. However, 246 cases were reported in 1974, 328 in 1975, 282 in 1976, and 232 in 1977.

PROGRAM RESPONSIBILITY SHARED  
WITH COOPERATING STATE AGENCIES

Veterinary Services administers the brucellosis eradication program nationwide; individual States participate through cooperative agreements. Active State participation is required

before Veterinary Services provides resources to assist with the program, and States must agree to carry out minimum standards established by Veterinary Services. Carrying out the animal disease control measures involves detecting, controlling, and eradicating brucellosis through (1) testing and surveillance, (2) inspecting infected herds, (3) controlling movements of diseased animals, and (4) eliminating infected animals. Primarily, the cooperating State agencies are responsible for providing personnel and funds to carry out the animal disease measures and Veterinary Services provides funds on a 60-40 basis.

Veterinary Services has established the Brucellosis Eradication Uniform Methods and Rules (UM&R) which contain the minimum standards for achieving and maintaining certification of herds and areas. These standards, which were substantially revised in 1979, are incorporated by reference in 9 CFR 78. In addition, each State may enact legislation and regulations which may be more restrictive than UM&R. UM&R standards, as accepted by the States, provide a minimum base for the orderly movement and marketing of cattle among the States. The types of restrictions placed on cattle movements depend on the disease certification status under UM&R. States certified as disease-free have the fewest restrictions on animal movements. UM&R specifies the conditions for each type of certification, including the highest level of infection allowed and the disease control measures which must be used in the certified area. UM&R also provides a number of disease control procedures which are recommended but not necessarily required for certification.

Veterinary Services is headquartered in Hyattsville, Maryland, but about 90 percent of its permanent employees are in field locations. The organization has five regional directors (see app. IV) in charge of 42 area veterinarians-in-charge, who are responsible for supervising field activities. Usually an area veterinarian-in-charge is responsible for all Veterinary Services programs in one State, but some are responsible for two or more States.

Each State is divided into sections and each section has one or more veterinary medical officers and animal health technicians. The duties and responsibilities of these field personnel depend on the agreements Veterinary Services has with the cooperating State agencies. Veterinary Services and cooperating State agencies contract with private veterinarians for vaccinating and testing services.

The State agencies' organizational structures vary. Some State agencies have large staffs and conduct most of the animal disease control measures themselves. Other State agencies are small organizations and rely on Veterinary Services to carry out the animal disease control measures.

## OBJECTIVES, SCOPE, AND METHODOLOGY

The purpose of our review was to determine how efficiently and effectively Veterinary Services and cooperating State agencies are managing domestic programs to control animal diseases. Our work focused on (1) evaluating the adequacy of management procedures and systems to assure that animal disease control measures are implemented properly and (2) evaluating the adequacy of animal disease control measures to identify, control, and eliminate diseases in infected animals.

This review was initiated after a survey of all Veterinary Services programs revealed that the greatest potential for improvement was in the domestic animal disease control programs. As a result of our survey, we issued a letter report to the Administrator, Animal and Plant Health Inspection Service, on September 3, 1980, suggesting improvements to the swine disease surveillance operations. Consequently, that area was not examined during this review. Other disease control programs were examined only if they were involved in the cases we randomly selected for study in this review.

We also excluded from this review the vaccination component of the brucellosis eradication program. Our survey disclosed no weaknesses in the program management of this component and the Brucellosis Technical Commission had considered alternative program options.

We also examined USDA's Office of Inspector General's issued reports on Veterinary Services programs, including a major report on brucellosis indemnity payments issued on February 15, 1980. Because the Inspector General's report thoroughly covered indemnity payments, we excluded that area from our review.

We conducted the review at the Veterinary Services headquarters in Hyattsville, Maryland, and its offices in Florida, Kansas, Mississippi, and Texas. The States were selected from those which ranked the highest in terms of (1) total expenditures by Veterinary Services and (2) disease incidence rates. The review in each of these States also covered activities at the cooperating State agency's headquarters and at two field locations. We selected field locations which had high levels of disease control activity and which could provide balanced coverage of Federal and State efforts. At these locations we studied the agencies' organization, regulations, policies, and operating procedures for controlling animal diseases. We also collected and analyzed data the agencies reported on their animal disease control efforts.

To examine the implementation of disease control measures at each field location, we randomly selected five owners of quarantined herds for interview and analyzed 15 case files, if available, on herds in which infection had been eliminated during fiscal year 1980. All the selected cases involved brucellosis except for 10 cases of scabies--5 each in Texas and Kansas. We

identified no management deficiencies in these scabies cases; consequently, they are not included in the analyses in this report.

We studied a sample of compliance cases to determine if enforcement efforts were encouraging compliance with disease control regulations through prompt investigations and forceful prosecution. In each State we randomly selected 25 cases for study, if available, from those closed in fiscal year 1980.

#### AGENCY AND STATE COMMENTS

We asked USDA and the pertinent State agencies in Florida, Kansas, Mississippi, and Texas to comment on a draft of this report. We received comments from USDA and from Mississippi and Texas. These comments indicated general agreement with most of the issues discussed but pointed out some areas which the responders felt were unclear, misleading, or inaccurate. USDA said that most of the recommendations cover problems which it had already identified and that corrective procedures had already been adopted or were being developed. USDA also said that it had not made major changes in the brucellosis eradication program from 1976 through 1978 because it had made a commitment not to make such changes until after the Brucellosis Technical Commission had completed a study of the program. (See p. 3.)

The USDA and State comments are incorporated in pertinent sections of the report. Their letters are included as appendixes V through VII.

## CHAPTER 2

### IMPROVEMENTS NEEDED IN MANAGEMENT SYSTEMS

Progress on Veterinary Services' major domestic disease control program has been impeded because several disease control measures have not been implemented effectively. These measures affect every principal program aspect, including identifying infected herds, eliminating infection from herds, and preventing movement of infected animals. We found that:

- Some animals sold at the livestock markets and subsequently identified as infected could not be traced to their herds of origin because of inadequate control over the collection of ownership information and the identification tagging of animals.
- Herds were not always tested timely to assure that infection was quickly eliminated. Over 50 percent of the herds were neither tested nor retested within the recommended times.
- In about 75 percent of the cases we examined, no controls were used to assure that all animals in quarantined herds were accounted for during the entire testing process. Consequently, in some cases infected animals were moved to other herds.
- Disease had sometimes spread without detection from known infected herds because field personnel had not identified exposed animals sold prior to quarantine and did not locate their new herds. Only one of the four States we examined used procedures to minimize this cause of disease spread.

Veterinary Services needs better management systems to implement disease control measures. Existing management systems focus only on the resources used, such as the number of staff hours devoted to a work program, rather than on quality of work performed and progress in accomplishing program objectives.

Veterinary Services and cooperating State agencies need to establish goals that target disease control measures which need special management attention. Managers and supervisors have not been evaluated on how well they follow recommended disease control measures.

Veterinary Services and cooperating State agencies need a better information system to assess performance and measure progress. Although basic documentation was available that reflected the work done, this information was not collected and analyzed to determine if work was performed properly and to measure progress toward program goals.

Veterinary Services and State agencies need to establish cooperative agreements that specify the division of functions and responsibilities among State and Federal agencies and form clear lines of authority and accountability. Agreements with State agencies provide only that the States will furnish a given number of work years of effort and that Veterinary Services will pay a certain amount of the costs.

BETTER CONTROL IS NEEDED AT LIVESTOCK MARKETS  
OVER COLLECTION OF OWNERSHIP INFORMATION

Some animals sold at livestock markets and subsequently identified as infected could not be traced to their herds of origin because of inadequate control over the collection of ownership information and the identification tagging of animals. Nationwide, 42,264 infected animals were identified at livestock markets and traced to 5,068 herds during fiscal year 1980. However, field personnel were unable to locate origin herds for about 3,400 infected animals. About 2,000 of these could not be traced; the others could be traced only to dealers or feedlots. State veterinary service personnel generally monitor activities at livestock markets, but neither Veterinary Services nor the States have provided guidance on what procedures to use to assure that sufficient ownership information is recorded.

Most animals are tested after leaving the livestock market; therefore, successful identification of origin herds depends on the accuracy of records which show the transfer of ownership and identify the seller. Of the infected animals identified in fiscal year 1980, testing at livestock markets disclosed only 40 percent. Of the remainder, testing at slaughter plants disclosed 58 percent and testing on the ranch or farm disclosed 2 percent.

When an animal is brought to a livestock market, market personnel are to place a numbered tag on it (see picture on p. 9) and record the seller's name and address. If testing at the livestock market or slaughter plant discloses infection, the tag, when available, is used to trace ownership. Nationwide, in fiscal year 1980, 11 million animals were tested. Of the animals found to be infected, 8,371 had no tags and 1,161 of these could not be traced to the previous owners. In addition, 812 infected animals having tags could not be traced to the origin herd. The number of untraceable animals--1,973--is a small portion of the 11 million animals tested but, depending on the number of unquarantined herds from which they came, it could be significant when compared with the 5,068 herds under quarantine at the end of fiscal year 1980.

According to Federal and State veterinary services personnel, incomplete or inaccurate seller information collected at livestock markets is a major hindrance to locating origin herds of infected animals. At five of the eight markets we visited, livestock market personnel were not properly applying



SOURCE: Department of Agriculture

APPLYING TAG AT LIVESTOCK MARKET

tags. Also, our observations at livestock markets and examination of disease control records showed that insufficient information about sellers was being collected at the markets. Sometimes only the seller's name was recorded; sometimes the name and address was recorded; and part of the time license numbers from the delivery vehicles were recorded in addition to the name and address. Except in Texas, vehicle license numbers are not required but, according to Veterinary Services personnel, they are very useful when the name or address is recorded incorrectly.

Field personnel in the four States reviewed were not monitoring the livestock market operations adequately to assure that tags were properly applied and that enough information about the seller was being collected. Except in Mississippi, State veterinary service agencies assumed responsibility for overseeing disease control operations at livestock markets. Mississippi hired personnel to do this work at livestock markets, but they were supervised by Veterinary Services personnel. Texas and Florida assigned personnel to monitor these activities at the markets, and Kansas delegated this responsibility to a private veterinarian at each market.

None of the State agencies provided written instructions on what duties to perform at the market. As a result, the duties varied greatly from one location to another. For example, at one market we visited, the field personnel's duties were limited to writing permits for moving animals, while at another market the field personnel had duties concerning test eligibility determination, animal identification, recording ownership information, and writing permits for animal movements.

Veterinary Services' cattle diseases staff representatives said that tracebacks would be more successful if State agencies provided their personnel better guidance on recordkeeping. These representatives said that they have only limited authority over livestock market operations, and that field personnel have no authority to direct recordkeeping at the markets. Although the 1979 revisions to the UM&R included a new provision covering recordkeeping at livestock markets, the States must enact compatible legislation or regulations to make this provision enforceable. (See discussion of dealer recordkeeping on pp. 25 and 26.)

In its comments on a draft of this report (see app. VII), Texas said that some corrections had been made since the completion of our fieldwork, including the publication of a handbook. We noted that the handbook contained instructions on the specific duties of livestock inspectors at livestock markets.

TIMELINESS OF HERD TESTS NEEDS TO BE IMPROVED  
FOR MORE SUCCESSFUL DISEASE ERADICATION

Herds were not always being tested timely to assure that infection is eliminated quickly. Fewer than 50 percent of the herds in the States we reviewed (see below) had been tested or retested within the recommended times. Although the timeliness of testing is generally recognized as having a major effect on the eradication effort's success, management systems do not measure timeliness of individuals or organizational units or set goals for improvement. In a previous report (B-133192, May 22, 1964), we also noted a need for improving timeliness of herd testing.

The basic approach to brucellosis eradication is to (1) quarantine and test herds suspected to be infected, (2) re-test infected herds, and (3) remove infected animals quickly to prevent disease spread. Because exposed animals incubate the disease before the disease manifests itself, and then expose other animals, successful eradication efforts depend on the timeliness of testing. The UM&R recommends that the herd of origin either be tested within 30 days after an infected animal is identified or quarantined, although testing within 60 days is considered acceptable. If the herd is infected, all infected animals should be removed and the herd should be retested every 30 days until the tests show that it is free of infection.

During fiscal year 1980 fewer than 50 percent of the herds in the four States reviewed were tested within the recommended times for initial tests and retests. The rate of initial tests pending over 60 days ranged from 23 to 58 percent during fiscal year 1980, as shown in the following table.

<u>State</u>	<u>Average</u> <u>number of herds pending</u> <u>initial test at monthend</u>		<u>Percent</u> <u>over</u> <u>60 days</u>
	<u>Total</u>	<u>Over 60 days</u>	
Florida	215	114	53
Kansas	64	20	31
Mississippi	184	42	23
Texas	<u>1,905</u>	<u>1,107</u>	58
Total	<u>2,368</u>	<u>1,283</u>	54

The rate of retests pending more than 60 days ranged from 35 to 60 percent, as shown in the following table.

State	Total	Average number of infected herds pending retest			Percent of herds pending retest over 60 days
		61-120 days	121-180 days	Over 180 days	
Florida	979	279	141	169	60
Kansas	155	45	10	4	38
Mississippi	741	197	53	14	35
Texas	<u>1,946</u>	<u>764</u>	<u>372</u>	<u>24</u>	60
Total	<u>3,821</u>	<u>1,285</u>	<u>576</u>	<u>211</u>	54

Data on the status of herd tests is collected at the State level each month and reported to Veterinary Services headquarters. This data, however, is not used at the State level to manage fieldwork. Delinquent herd test listings are compiled monthly and field veterinarians have to explain why the tests are delinquent. We found, however, that the explanations generally become routine, limiting the effectiveness of the listings.

#### ACCOUNTABILITY FOR ANIMALS TESTED NEEDS TO BE IMPROVED TO MINIMIZE DISEASE PROLIFERATION

Contrary to Veterinary Services' requirements, field personnel had not accounted for all quarantined animals from test to test for about 75 percent of the 97 cases we examined. In some cases, exposed animals were removed from quarantined herds before preventive measures were taken to stop disease from spreading to other herds.

Veterinary Services' procedures require that field personnel test all eligible animals in a quarantined herd and record each animal's identity on a test record. The animals must be accounted for from test to test to prevent diseased animals from (1) moving to nonquarantined herds, (2) being excluded from tests and spreading disease until detected on subsequent tests, and (3) being sold without proper controls to assure they do not expose other herds. Numbered ear tags are placed on the animals so that they can be accounted for during each test. (See picture on p. 13.) Herd blood tests are to include all cattle over 6 months of age except steers, spayed heifers, and certain vaccinated animals.

Our random sample of 97 herds released from quarantine during fiscal year 1980 at selected field locations in each State showed that in 75 percent of the cases, field personnel had not accounted for all animals in quarantined herds during each test. In 11 percent of these herds, not all the animals had been tested, as shown in the table on page 14.



SOURCE: Department of Agriculture

APPLYING EAR TAG

State	Number of herds sampled	Herds			
		Not all animals tested		Animals not accounted for from test to test	
		Number	Percent	Number	Percent
Florida	20	4	20	16	80
Kansas	25	2	8	18	72
Mississippi	30	1	3	22	73
Texas	<u>22</u>	<u>4</u>	18	<u>17</u>	77
Total	<u>97</u>	<u>11</u>	11	<u>73</u>	75

Some of the cases were indicative of situations enabling disease to spread when control measures are not properly implemented. For example:

- Animals were moving back and forth between two quarantined herds, although one was still infected and testing on the other had been discontinued.
- Animals not tested were subsequently identified as infected.
- A herd of 166 cattle was released from quarantine without a complete herd test demonstrating the absence of infection.
- An owner removed 84 cattle from a quarantined herd without branding or permits and sold them at a live-stock market.

Veterinary Services personnel told us that problems associated with accounting for all animals during herd tests are often due to field working conditions and the lack of herd owners' cooperation in gathering all the cattle for tests. We found, however, that some problems were caused by the field personnel's recordkeeping practices. For example, in some cases the field personnel did not record each test on the same tag when an animal had more than one ear tag.

Also, field personnel had not been given written instructions on how to conduct and record herd tests. The Veterinary Services' management system does not emphasize this area. Information is not collected and analyzed to identify problems and measure performance by individuals and organizational units (see p. 17), and no goals exist for performance improvements (see p. 16).

In its comments on a draft of this report (see app. V), USDA said that although the field personnel we interviewed may have indicated that they had not received written instructions, such instructions are available in Veterinary Services Memorandum 551.28 and have been supplemented by many States with a

manual for each field employee. Our review of this memorandum, however, showed that it did not provide instructions on how to conduct herd tests to avoid problems such as those discussed above; it merely provided instructions on the types of information to be included on the form.

The handbook published by Texas after the completion of our fieldwork (see p. 10) provides in part that:

"When testing cattle, new tags should only be used when there are no other tags, individual brands or tattoos available on the animal. In subsequent tests of any herd, any identification previously used in earlier tests should be used in place of another ear tag. In cases where there is more than one tag on an animal all tag numbers should be entered."

These explicit instructions should help to avoid herd and owner identification problems in Texas.

MORE EMPHASIS SHOULD BE PLACED ON LOCATING EXPOSED ANIMALS SOLD BEFORE QUARANTINE

Disease can spread from known infected herds without detection when field personnel do not identify the exposed animals which were sold before quarantine and locate their new herds. Only one of the four State programs we reviewed used procedures to minimize this cause of disease spread.

No national data is collected on how frequently animals exposed to disease are sold from herds later quarantined or how frequently field personnel take steps to locate these animals' destination herds. However, fiscal year 1980 data available in Texas showed that animals from 1,235, or about 30 percent, of the 4,047 quarantined herds had been removed and sold from 3 to 12 months before the quarantine.

The UM&R recommends that field personnel complete an epidemiological study on the incidence, distribution, and control of disease on all quarantined herds. As part of this study, they are to determine if any animals were sold between the date of the onset of the infection and the quarantine date. If so, they are to locate the receiving herd and test the animals.

Kansas was the only State we visited that usually performed epidemiological studies and subsequent testing of other exposed contact herds as prescribed by UM&R. In Mississippi and Texas, field personnel generally collected some epidemiological information but did not test herds that had been in contact with known infected herds. Mississippi is currently contracting with private veterinarians to carry out this herd-testing practice. In Florida, no efforts were being made to collect the essential epidemiological data.

Veterinary Services personnel told us that Florida, Mississippi, and Texas do not follow through with this work because they have neither the time nor the resources. However, we noted that there were occasions when personnel from these three States had time to do this work when weather or other circumstances prevent conducting assignment herd tests.

GOALS ARE NEEDED TO ENCOURAGE IMPROVED  
IMPLEMENTATION OF DISEASE CONTROL MEASURES

Veterinary Services and cooperating State agencies need to establish goals for improving performance in implementing disease control measures. Currently, managers and supervisors are not evaluated on how well they implement the recommended measures.

The only annual goals established in the States we visited were centered on workload measurement. Their goals consisted of meeting the budget estimate in Veterinary Services' Work-Based Budgeting System. This system provides for computing the number of personnel needed to accomplish tasks based on past experience, budgeting for personnel needs, and reporting the number of personnel used. Managers review and compare the actual work hours used monthly for each type of task with the hours budgeted. If the actual differs from the budgeted, they attempt to determine why and make appropriate adjustments. Although this process can be instrumental in assuring that personnel are properly allocated, it cannot be used effectively to measure either the quality of performance or the amount of progress in disease eradication. Goals are not established for each organizational unit to show managers, supervisors, and field personnel what is expected of them in implementing disease control measures.

Performance appraisals for managers and supervisors generally include at least one part that addresses disease control efforts, but they do not focus on the extent to which disease control measures are properly implemented. For example, although the appraisal for the Federal veterinarian-in-charge includes "work accomplishment" as one of five critical job elements, it merely compares actual with budgeted staff time for each disease program.

Field supervisors told us that they have no criteria for evaluating how well field personnel are carrying out disease control procedures. To evaluate the performance of field personnel, they use weekly activity reports, personal contacts, telephone discussions, and occasional field visits. The weekly activity report is primarily a time and attendance document containing only a brief description of work activities. This report provides no insight into the performance of staff. Many supervisors were primarily monitoring field personnel to see whether they stayed busy.

BETTER INFORMATION SYSTEM NEEDED TO  
ASSESS PERFORMANCE AND MEASURE PROGRESS

Veterinary Services and cooperating State agencies need better information systems to assess performance and to measure progress. Although basic documentation of work done is available, it is not collected and analyzed to determine if work is performed properly and to measure progress toward program goals for field organizations within the States.

Veterinary Services' information systems collect information primarily for budget control and certification of disease status. For budget control, the system collects data such as the number of herds tested, number of animals inspected, and amount of work hours devoted to each type of disease control task. This data is used to prepare the annual budget and to assure that work hours are used in accordance with the budget. In its comments on a draft of this report, USDA acknowledged that the manual information system has probably not been used as effectively as it could have been to determine performance and measure progress.

For certification of disease status, the system collects monthly data such as the number of (1) animals tested, (2) infected animals identified, (3) infected animals traced to origin herds, (4) infected animals traced only to dealer or stockyards, (5) quarantined herds, and (6) herds pending tests for 60, 61 to 120, and more than 120 days. This data is used to compute rates by area--counties and States--for determining certification status. The certification status is used to determine the type of disease control procedures to be used in the area. The certifications are made using the rate of infection disclosed from testing, the percent of all animals tested, and the percent of infected animals traced to origin herds.

In the four States we reviewed, the information systems contained data that could have been used to assess performance of disease control procedures and to measure progress. However, this data was summarized only for the State as a whole. If this data was broken down by location and provided to field managers and supervisors, it could be used to

- assess the timeliness of herd testing,
- identify instances in which inadequate recordkeeping prevented tracing infected animals to origin herds, and
- measure progress in reducing infection rates.

Additionally, other data from records produced during fieldwork could be collected and analyzed to provide further information on the degree to which disease control measures are implemented by individuals and organizational units in the field. For example, information from livestock market and slaughter plant test records

could be correlated with field epidemiology investigation reports and analyzed to identify (1) the markets having recordkeeping problems which prevent tracing infected animals to origin herds and (2) field units and personnel that are not completing field investigations or are not submitting timely reports. The field epidemiology investigation information could also be correlated with herd test records to identify, by field unit, animals sold before quarantine which need to be traced to destination herds. In addition, information from herd test records could be collected and analyzed by individuals and organizational units to determine the timeliness of herd tests and the adequacy of efforts to account for all animals in quarantined herds throughout the testing process.

Kansas and Mississippi maintain records manually; consequently, none of the information discussed above could be readily summarized and analyzed in these States. Except for automated records on indemnity claims and the results of tracing infected animals to origin herds, Texas also used a manual records system. In Florida, however, a new system was being developed by a private firm under contract with the State agency. The records were being placed in an automated processing system as part of a pilot project sponsored by Veterinary Services. Although plans exist to install this automated system in other States after testing in Florida, no new statistical summaries are being planned, except for a listing of incomplete field epidemiology investigations.

A Veterinary Services representative told us that the automated processing system was being developed in Florida because the manual recordkeeping system would not be able to efficiently handle the records associated with an accelerated test program undertaken in 1980. The system's primary capability was to make data available quickly for field personnel to use in herd tests.

A Veterinary Services representative who monitors development of the automated data system told us that no plans exist to add system capabilities which would provide statistical summaries and exception data for field managers and supervisors to use. However, he said that the system contains data necessary to produce reports which managers and supervisors could use to evaluate timeliness of herd tests, account for animals during the testing process, and determine adequacy of records for tracing infected animals to origin herds.

In its comments (see app. V), USDA said that the conclusions drawn on the purposes and use of the brucellosis information system being developed appear to be based on observations and discussions of the Florida system and not on the national system. Our conclusions are based on observations of the systems in use at the time of our review in Florida, Kansas, Mississippi, and Texas and of the system being developed in Florida. These

observations were supplemented by discussions with pertinent State and Federal officials. The national system to which USDA referred was under development at the time USDA provided its comments.

According to USDA, the national brucellosis recordkeeping system will provide comprehensive program information, including the areas discussed in our report. USDA said that:

- The national system is being developed in stages to include records concerning herd tests, market cattle identification and tests, vaccinations, brucellosis ring tests, and indemnity; epidemiology reports; and perhaps eventually interstate health certification information.
- The information gathered will be used to improve field operations by ascertaining such things as animal movements between units of infected herds, accuracy of animal identification, completeness of herd tests, and accountability for new or missing animals.
- Analysis of progress in numerous program areas will be possible using standardized computerized reports.
- Identification of potential problem areas will be simplified by setting limits which will automatically flag unusually high or low values in such areas of concern as the diversion of reactors from permitted destinations, retest schedules, postmovement quarantine and retest accomplishments, and blood test result patterns.
- Epidemiologic data on probable sources of infection, high-risk herds, and recognition of trends in disease distribution may also be obtained by computerizing brucellosis records.
- Eventually all States are expected to participate in a consolidated national system to gain maximum advantage of the information currently being collected but relatively inaccessible by manual or inadequate automated methods.

These USDA plans to expand the brucellosis information system's capabilities were initiated after we completed our review. A full description of the proposed system and its management reports was not available for our review at the time USDA responded to our draft report.

COOPERATIVE AGREEMENTS NEED TO CLEARLY DEFINE  
AUTHORITY AND RESPONSIBILITY OF FEDERAL AND  
STATE PERSONNEL

The cooperative agreements between Veterinary Services and State agencies for the brucellosis eradication program in the

supply the personnel to carry out program activities and that Veterinary Services would help pay their salaries. They did not specify

- the division of functions and responsibilities between Federal and State agencies,
- the progress and accomplishments expected from these activities, or
- lines of authority and accountability when both State and Federal personnel were assigned program functions in the field.

We found that lines of authority and accountability could be improved in two of the States. In Florida, the Federal and State agencies had joint supervision and overlapping authority. For program management, the State is divided into 5 districts encompassing 24 areas. Each area and district is headed by a Federal or State veterinary medical officer (VMO). The area VMOs are assisted by a work force of both State and Federal personnel. Area VMOs are responsible only to their respective district VMOs, regardless of whether they are Federal or State employees. However, each district VMO is responsible to and takes instructions from both State and Federal officials.

In Texas, Federal and State duties and responsibilities for fieldwork overlapped, although the State has primary responsibility for carrying out the program. To manage disease control programs, the State agency has divided the State into 15 areas; Veterinary Services has divided it into 18 sections. These State areas and Federal sections geographically overlap. Normally, each area is headed by a State VMO and staffed with State inspectors; each section is headed by a Federal VMO and staffed with Federal technicians. Although State and Federal personnel work in the same geographic areas on the same program, Federal personnel do not supervise, monitor, or work for the State VMO in charge of the area.

For example, in one of the areas we visited in Texas, the State and Federal VMOs had agreed that the Federal VMO would be responsible for the program in two counties. The Federal VMO, who spends about two-thirds of his time on the brucellosis program, has no staff to direct or supervise. He is, however, assisted by the State inspectors who have program responsibilities in the same two counties. These State inspectors are supervised and directed by the State VMO. The State VMO said that he does not know what progress the Federal VMO has made in these two counties because the two VMOs do not coordinate their efforts and activities.

In another Texas area the Federal VMO expressed an interest in becoming more involved in the brucellosis program because her office could offer well-trained technicians and had the time to

spare. Nevertheless, the Federal VMO said that it was strictly up to the State VMO in charge of each area to decide whether he or she wanted the assistance.

In its comments on a draft of this report (see app. VII), Texas said that one of the corrections it had made since the completion of our fieldwork was giving brucellosis program responsibilities in several counties to the Federal VMO discussed in the preceding paragraph.

Texas said that the dual program concept is an everyday problem to Texas in livestock disease activities. Texas suggested that possible consideration be given to adopting procedures similar to those under the cooperative meat inspection program. Texas said that would allow the Federal Government to pay 50 percent of the costs to the participating States which would direct the program, using only State employees.

We believe, however, that a program involving interstate movement of possibly diseased animals requires Federal direction and coordination.

#### COMMENTS ON THE NEED FOR IMPROVED MANAGEMENT SYSTEMS

Veterinary Services officials generally agreed that disease control and eradication efforts could be more effective if the management system components--guidance to field personnel, performance goals, and information systems--were better aimed at measuring and improving performance in implementing disease control measures and clearer lines of authority and responsibility were established for program functions in some States. However, they said that the nature of the cooperative program makes it difficult to ensure that these components are properly implemented. They cited examples in which these components were incorporated in the management system for operations in a State and were very effective because of the cooperative actions by the Federal veterinarian-in-charge and the head of the State agency. But when the Federal or State official was replaced, the cooperation stopped and these components were dropped from the management system.

#### CONCLUSIONS

Veterinary Services and some cooperating State agencies have not adequately implemented some of the disease control measures designed to identify infected herds, eliminate infection from herds as quickly as possible, and prevent the movement of infected animals. The impact of inadequate implementation may not seem significant when control measures are considered individually, but collectively they allow a reservoir of infected herds to continue spreading disease and preclude the efficient use of Veterinary Services' resources. To implement disease control measures effectively and to maximize its use of resources,

Veterinary Services needs to improve its management systems to include (1) instructions to field personnel on proper implementation of disease control measures, (2) goals which emphasize improved implementation of disease control measures, (3) an information system which collects and analyzes data to measure each organizational unit's performance and progress in implementing disease control measures, and (4) clear lines of authority and responsibility for field operations.

RECOMMENDATIONS TO THE SECRETARY  
OF AGRICULTURE

We recommend that the Secretary direct the Administrator, Animal and Plant Health Inspection Service, to

- develop instructions covering the operations necessary to assure that disease control measures are properly implemented and, in conjunction with cooperating State agencies, provide the instructions to all field personnel;
- establish goals that emphasize improved implementation of disease control measures;
- modify the automated data system so that it can provide summary and exception information reflecting the degree to which disease control measures are properly implemented by each organizational unit and install the automated data system in States having a high incidence of animal disease; and
- formulate cooperative agreements which clearly show lines of authority and responsibility for program functions at each organizational level for both State and Veterinary Services personnel.

AGENCY COMMENTS

USDA said that corrective procedures had already been adopted or were being developed for most of the recommendations in our draft report and that it would address each recommendation in detail after our final report is received. (See app. V.)

## CHAPTER 3

### INEFFECTIVE AND UNENFORCED REGULATIONS

#### FRUSTRATE DISEASE ERADICATION EFFORTS

Veterinary Services needs to strengthen regulations to help prevent the interstate movement of infected animals and to provide for adequate recordkeeping to locate origin herds of infected animals. Also, steps should be taken to strengthen enforcement efforts to discourage individuals from circumventing disease control measures.

Ineffective procedures to identify infected animals moved interstate have contributed to the spread of brucellosis from high- to low-incidence States. During fiscal year 1980 the number of infected herds increased in 19 low-incidence States, 3 of which had begun the year free of the disease. (See app. III.) Veterinary Services adopted improved procedures for interstate movement of animals in 1979, requiring State implementation by January 1982. However, these procedures still will not prevent interstate movement of animals incubating disease.

Because of inadequate recordkeeping requirements for dealers, Veterinary Services and State agencies are unable to trace hundreds of infected animals to origin herds each year. Veterinary Services' UM&R recommends that States enact provisions enabling them to trace animal ownership through dealers; however, some States have not enacted these provisions. Veterinary Services has not established practical avenues to persuade States to comply. In addition, an approach to assure that good recordkeeping practices are followed has not been established and coordinated with States that have the necessary regulatory provisions.

Veterinary Services' enforcement of disease control regulations must be more timely, and penalties must be commensurate with violations if they are to deter circumvention of disease control measures. For the cases we examined, enforcement actions generally took about 19 months to complete and, in the few cases where violators were penalized, only nominal fines were levied. To penalize violators promptly and appropriately, Veterinary Services needs to (1) provide stronger central direction and coordination to expedite investigations and (2) develop a provision for administratively levied fines.

Veterinary Services personnel believe that another primary cause of the spread of brucellosis is false health certifications by private veterinarians. Veterinary Services has not effectively used available information to monitor the accuracy of certifications nor has it restricted investigation of these difficult cases to its personnel with the necessary training and experience.

TESTING OF ANIMALS MOVED INTERSTATE NEEDS  
TO INCLUDE THE DISEASE INCUBATION PERIOD

Veterinary Services revised its UM&R in 1979 to add provisions for retesting animals moved interstate for placement in breeding herds. Previously, it had required only that eligible animals which were not from certified, brucellosis-free herds or areas be tested within 30 days before movement or on arrival at the first point of concentration or assembly point. Mississippi said that it would be impractical to test animals over a period sufficient to span the incubation period. According to the Brucellosis Technical Commission, however, it would be necessary to isolate an animal from exposure and test it over a 180-day period to assure that it is free of brucellosis.

The Brucellosis Technical Commission had recommended in 1978 that destination tests be conducted from 30 to 150 days after arrival. Such a provision was included in a draft of the revised UM&R, but a Veterinary Services' cattle diseases staff representative told us that it was strongly opposed because of the cost involved in holding animals awaiting tests. Also, large numbers of people, including technical experts on brucellosis, informed Veterinary Services that

--30 days was not enough time to detect so many exposed, incubating animals and

--150 days was too much time because it would allow infected animals to remain undetected for too long, causing additional cattle to be exposed; they recommended a maximum of 120 days.

Veterinary Services officials agreed and revised UM&R to require that an animal be retested from 45 to 120 days after arrival. USDA said that the Brucellosis Technical Commission informed Veterinary Services that the Commission had recommended 30 to 150 days because that would allow greater freedom of movement. The Commission agreed, however, that 45 to 120 days would be better, scientifically.

Veterinary Services' cattle diseases staff representatives said that the 45-day test will catch most of the animals that are incubating the disease. However, no statistics are available showing the correlation between the test period's length and the percent of animals discovered to be incubating the disease. In addition, no information is available on the cost of extending the retest period or the types of importers affected. The staff representatives said that objections to longer retest periods were from people who want to resell or deliver the animals as soon as possible after they arrive. If the State permits, however, these people could sell or deliver the animals on arrival and a quarantine would accompany them until retest.

STRONGER PROVISIONS ARE NEEDED TO ASSURE THAT  
DEALERS FOLLOW GOOD RECORDKEEPING PRACTICES

Because of inadequate recordkeeping requirements for dealers, Veterinary Services and State agencies are unable to trace hundreds of infected animals to origin herds each year. In fact, the number of infected animals that cannot be traced may be even higher than statistics indicate. Veterinary Services personnel told us that some technicians who cannot trace ownership through the dealer still classify the case as "traced to herd, test not recommended." Statistics show this classification as a successful trace.

Veterinary Services' UM&R recommends that States enact provisions enabling them to trace animal ownership through dealers; however, some States have not implemented such provisions. In addition, at the time of our review, an approach for enforcing recordkeeping requirements had not been established and coordinated with States that have the necessary regulatory provisions because Veterinary Services was giving priority to monitoring actions on new livestock market test requirements.

Dealers regularly buy and sell animals at livestock markets and through direct transactions with herd owners. Veterinary Services personnel told us that the foremost problem in locating origin herds of infected animals is that dealers mix animals from different sources and do not maintain records to identify sources of purchases. One of these personnel said that brucellosis eradication cannot be achieved until States enact effective dealer licensing and recordkeeping laws.

The absence of adequate dealer records also prevents some States from enforcing rules for testing animals when ownership changes. Without records on individual transactions, State veterinary service agencies cannot confirm that animals are being tested properly. Nearly 30 percent of the herd owners we interviewed said that infected animals in their herds were purchased from dealers.

The Brucellosis Technical Commission recommended in 1978 that each State have and enforce regulations requiring all dealers to keep records which enable the tracing of animals from buyer to seller or seller to buyer. The UM&R, revised in 1979, addresses dealer registration and recordkeeping in the recommended procedures section and designates the registration or licensing of dealers and the enforcement of recordkeeping provisions as State responsibilities. However, it does not specify the action to be taken if States do not fulfill these responsibilities. Therefore, States can disregard the requirements without jeopardizing their disease certification status.

Because of local opposition, 13 States had not taken steps by the end of 1980 to enact dealer recordkeeping requirements. Veterinary Services officials responsible for the brucellosis

program told us that they could only try to persuade the States to enact the dealer recordkeeping provisions because these provisions are only recommended and are not considered in certifying State disease status.

Two of the four States included in our review had established dealer recordkeeping provisions in their regulations. However, neither of these States had implemented the provisions at the time of our review. The States we examined generally did not have any compliance personnel except those involved in road-check operations to confirm that proper permits and documentation accompanied animal shipments. Veterinary Services had neither established an approach for enforcing recordkeeping requirements nor coordinated enforcement actions with the States.

In its comments on a draft of this report (see app. VI), Mississippi said that it and all other States were working for legislation and regulations to improve dealer recordkeeping practices.

#### MORE TIMELY ENFORCEMENT ACTIONS AND APPROPRIATE PENALTIES ARE NEEDED

Veterinary Services' enforcement of disease control regulations must be more timely, and penalties must be commensurate with violations if it is to deter circumvention of disease control measures. For the cases we examined, enforcement actions generally were not completed within an average of 19 months and, in the few cases where violators were penalized, only nominal fines were levied. To penalize violations promptly and appropriately, Veterinary Services needs to (1) provide stronger central direction and coordination and (2) be authorized to levy civil penalties.

In its comments on a draft of this report, Mississippi said that improving the timeliness of enforcement of disease control regulations would require more State and/or Federal personnel but that personnel ceilings have been frozen for years. Mississippi did not agree that administratively levied fines was a viable solution.

Veterinary Services has at least one compliance officer in each State and in each of its regions. In addition, some State agencies have compliance personnel, but their animal disease enforcement responsibilities are generally limited to road-check operations to confirm that proper permits and documentation accompany animal shipments. Two of the States we visited, Florida and Texas, had compliance personnel. Florida used these personnel for road-checks; Texas had two people assigned to investigate intrastate movement violations and six assigned to road-checks. The State compliance officers in Florida and Texas maintain little more than logbooks or data sheets on enforcement actions because violations disclosed from road checks are quickly settled. Cases of suspected violations are carried directly to the local courts for action.

The Federal compliance officers in each State report to Veterinary Services' area veterinarian-in-charge for the State or his or her designee. Their cases are generally initiated as a result of referrals from other States, road-check activities, or field personnel. Most cases in the four States we visited involved animals moved interstate without proper tests or permits. Final reports and notifications to start cases flow through the area veterinarian-in-charge, but otherwise compliance officers have little supervision. They generally operate independently of regional and headquarters compliance officers.

### Untimely investigations

Field investigations of interstate movement violations are conducted consecutively in each State involved in the violation. State compliance officers do not share information on the scope or results of investigations until they issue a report at the end of their fieldwork. Thus, little possibility exists for coordination to expedite investigations, and the actual case time is prolonged depending on the number of States involved in the violation and the timeliness of the investigation in each State.

From the four States we reviewed, we randomly selected and examined 51 cases closed in fiscal year 1980. The average case time from opening to closing was approximately 19 months. Veterinary Services officials said that they have taken actions to improve the timeliness of enforcement activities by establishing a criterion for completing field investigations and by requiring that this criterion be used in performance appraisals. A field investigation is to be completed and results reported to headquarters within 60 days of case opening. During the third quarter of fiscal year 1980, compliance officers completed 72 percent of their cases within 60 days; during the fourth quarter they completed 81 percent within 60 days.

We believe that this criterion will help expedite enforcement actions if properly used. However, the criterion applies separately to each State and Veterinary Services is not controlling the total investigation time in all States. From our 51 sample cases, we analyzed 25 cases which had remained open 6 months or more. The field investigations in each State exceeded the 60-day criterion for six cases. We found that although one or more States completed their investigations within 60 days, some field investigations were untimely. For example, in two cases investigations at one State were completed within 60 days, but the work at another State lasted more than a year. Also, in four cases all State investigations were completed within 60 days, but additional requests for information extended the investigations to more than a year.

Our examination of these 25 cases disclosed a number of factors that adversely affected the timeliness or results of the investigations. Strong central direction and coordination was not provided in these cases; therefore, information was not shared to

start the investigations in each State at the earliest possible time, and supervision concerning the adequacy of information gathered was not provided until after the field investigations were completed in the States and information forwarded to headquarters. These factors are shown in the following table.

<u>Factor</u>	<u>Number of cases affected</u>
Principal violator was not contacted	4
Principal violator was not contacted until late in the investigation	3
Evidence was not obtained on disposition of all cattle	2
Charge was not covered by regulation	3
Witness declined to testify but investigation continued	1
Compliance officer did not collect all the information before submitting report	8

The Veterinary Services headquarters official responsible for enforcement activities generally agreed that stronger central direction and coordination could improve investigation timeliness and results, but headquarters officials responsible for program administration believed that the compliance officers should continue under the supervision of the area veterinarian-in-charge in each State. They said that the area veterinarians-in-charge need to know of all compliance activities in progress so they can respond to inquiries from State agencies and the industry and maintain good working relationships. They also felt that this working arrangement encouraged better communication and cooperation between compliance and other field personnel.

We believe that stronger direction and coordination could be achieved if enforcement activities were a separate line function because it would facilitate and expedite information sharing and coordination on the scope and results of investigations. (See p. 27.) The area veterinarians-in-charge could be kept apprised of enforcement activities by continuing to give them copies of the investigation requests and reports they now receive.

#### Penalties are not commensurate with violations

Penalties for violations of animal disease control regulations have not been commensurate with violations and, therefore, have not effectively deterred the circumvention of disease control measures, even by those who should have been aware of disease

control requirements. Of the 51 investigation cases we examined that were closed in fiscal year 1980, 27 involved dealers, marketing personnel, or others involved in animal sales and movements who should be knowledgeable of disease control regulations. The other 24 involved producers.

The only sanction against violators available to Veterinary Services is criminal prosecution through the Department of Justice. If a case is prosecuted successfully, a U.S. district judge determines the amount of the fine levied; there is no standard fine for each type of offense. Although the maximum fine is \$1,000, the largest fine levied in the cases we sampled was \$500; the average fine was only \$193. Veterinary Services personnel told us that paying the maximum fine is sometimes less costly for a violator than obtaining the tests and health permits required for animal movements.

Adding to the problem of enforcing compliance is the fact that few violators investigated are ever prosecuted. Of the 51 cases we sampled, Veterinary Services dropped 18, sent 18 to U.S. attorneys, and issued letters of warning on the others. Cases were dropped primarily because of insufficient evidence or because they were not prosecutable under current regulations. The U.S. attorneys rejected 12 of the 18 cases referred to them because they felt the cases could not be prosecuted successfully. Of the six cases prosecuted, one was dismissed by a grand jury and five were prosecuted successfully.

USDA has recognized the need to improve prosecution of violators and submitted to the 96th Congress a draft bill that would have authorized civil penalties for violations of various laws concerned with preventing the introduction and dissemination of livestock and poultry diseases and plant pests. USDA believes this additional authority would have (1) enabled it to handle many violations more expeditiously, (2) provided greater flexibility in imposing sanctions for more effective enforcement, and (3) insured a greater degree of consistency in the sanctions. The draft bill would have retained the sanction for criminal prosecution now available, but increased the maximum fine to \$5,000. The 96th Congress did not act on this draft bill and USDA had not resubmitted it to the 97th Congress at the time of our review.

#### SPECIAL EFFORTS ARE NEEDED TO DISCOURAGE FALSE CERTIFICATIONS ON ANIMAL HEALTH

False certifications by private veterinarians on animal health have long frustrated efforts to control the spread of brucellosis. Some Veterinary Services personnel believe that false certification is one of the primary causes of the spread of disease from herd to herd and State to State. Because false certification is difficult to prove, Veterinary Services needs

to develop monitoring systems that focus on potential irregularities and assign experienced personnel to investigate and gather evidence.

Veterinary Services personnel in each State we studied said that a primary cause of the spread of brucellosis from State to State and herd to herd is that private veterinarians falsely certify animal health using a "screening" process. Screening involves testing a herd, identifying and removing infected animals, and then certifying the remaining animals as healthy. Because these certified animals have been exposed to disease, some may be incubating infection and, if these animals are sold, other herds may be infected.

Screening has been publicly declared as a cause of the spread of brucellosis. In a recently publicized case, Veterinary Services charged a private veterinarian with screening a herd of 930 animals. The veterinarian had tested the herd and removed 12 animals which he called suspects and 10 others of undetermined status. The remaining animals were certified as healthy, sold, and shipped to another State for sale at auction. A month later, the animals were retested at destination and some found to be infected.

Although Veterinary Services occasionally discovers and pursues screening cases as part of its normal compliance activities, no coordinated or concentrated effort has been made to investigate this practice, except for the activities of a special task force organized in 1980 at the request of Veterinary Services regional directors. The task force was to investigate situations in which infected animals were found in herds after they had been shipped interstate and determine whether cattle were being screened before shipment.

The task force collected information on 71 herds in six States. The animals in these herds had come from eight States. The task force decided to pursue 55 cases involving animals originating in four States. The other cases were dropped or referred to compliance officers in the origin States for followup investigations.

The task force had difficulty obtaining evidence for some of the 55 cases because (1) the animals in the herd had passed through more than one market, (2) dealers had assembled the herd from several sources, or (3) documentation was not available to show whether the origin herds were infected. One of the cases had been investigated previously by regular compliance officers, but they had failed to collect and submit the proper information. The task force was able to turn it into a prosecutable case.

The task force identified 4 screening cases and 14 cases in which other disease control regulations, including the following, had been violated.

- Veterinarians had issued health certificates although they had not tested the animals.
- Animals had been shipped interstate without the proper permits or certificates.
- Veterinarians had allowed their assistants to prepare and sign certificates.
- Animals had been shipped from herds which had been released from a quarantine without the required complete herd test.

The task force also noted several other cases with strong indications of screening but found insufficient evidence for prosecution.

The task force concluded that screening is a major roadblock to brucellosis eradication. They found that although evidence of irregularities is available in the field, it is not used to initiate compliance efforts. This evidence included epidemiology investigations showing that herds were infected by animals shipped interstate and records showing that some veterinarians had been issued large numbers of test kits which were unaccounted for. These test kits could have been used for screening herds.

In November 1980 the task force submitted a report to the regional directors recommending that

- a concentrated enforcement effort be undertaken to eliminate screening,
- stricter control be exercised over test kits,
- field personnel make referrals when fieldwork discloses potential irregularities,
- a warning be given to private veterinarians regarding penalties for improperly prepared certificates, and
- compliance personnel be placed in a separate line organization from program operations to strengthen the enforcement function.

The task force was dissolved and the regional directors said they would study the recommendations. However, they strongly disagreed with the recommendation for a separate line organization for enforcement activities for the same reason that headquarters program officials disagreed. (See p. 28.)

#### CONCLUSIONS

Veterinary Services needs to strengthen its regulations to help prevent the interstate movement of infected animals and to

provide for recording sufficient information to locate origin herds of infected animals. Veterinary Services' test requirements for interstate animal movements are inadequate to prevent the spread of disease through interstate shipments. Although Veterinary Services recommended recordkeeping provisions that would significantly aid in locating infected herds, it did not specify compliance with these provisions as a consideration in certifying a State's disease status. Therefore, it did not provide incentives for cooperating State agencies to seek enactment of and enforce these provisions. Additionally, Veterinary Services is not coordinating with States that have the necessary recordkeeping laws and regulations to assure that an effective enforcement approach is established and that the necessary compliance personnel are available.

Veterinary Services' enforcement efforts have not been adequate in discouraging individuals from circumventing disease control measures. Investigation efforts are not being coordinated to assure timely and effective results. The penalties assessed for violations have been only small fines; consequently, they have been ineffective in deterring violations.

Veterinary Services has not effectively used available information to monitor the accuracy of animal health certificates by private veterinarians nor properly aligned its enforcement personnel to assure that screening cases are investigated by those with sufficient training and experience. Information available in the field has not been collected and analyzed to identify areas where enforcement efforts would have the greatest potential for disclosing screening.

#### RECOMMENDATIONS TO THE SECRETARY OF AGRICULTURE

We recommend that the Secretary direct the Administrator, Animal and Plant Health Inspection Service, to

- collect and analyze information regarding the effects of extending the test period to include the recognized incubation period, including (1) any increase in the number of infected animals identified and (2) any increase in cost to herd owners; ]
- revise the Brucellosis Eradication Uniform Methods and Rules to include dealer recordkeeping provisions as a consideration in certifying a State's disease status; ]
- strengthen enforcement activities by (1) creating a separate line function for compliance personnel, (2) requiring closer coordination of field investigations, and (3) forming a cadre of personnel with the necessary training and experience to effectively pursue cases of improper health certifications by private veterinarians; ]  
and

--resubmit USDA's draft bill authorizing civil penalties and, if it is enacted, (1) establish heavier penalties for those who repeatedly circumvent disease control regulations and (2) assure that penalties exceed the cost of complying with laws and regulations.

#### AGENCY COMMENTS AND OUR EVALUATION

USDA did not agree with the specific actions to be taken in the first three recommendations. (See app. V.)

Concerning the first recommendation, USDA said that interstate test requirements must be ones that can be accepted by the livestock industry and can be carried out. It said:

--The most efficient time frame for a postmovement test is from 45 to 120 days.

--Because more than one postmovement test would be impractical, the Brucellosis Technical Commission recommended adding additional premovement tests. Such tests will be required after January 1, 1982.

--A comprehensive national brucellosis information system is being developed. The system will include records concerning tests, epidemiology reports, and perhaps eventually interstate health certification information.

We discussed the requirements for premovement tests that are to be effective after January 1, 1982, with Veterinary Services officials and learned that cattle from high-risk States would have to be tested and found free of infection on two tests at least 60 days apart and the cattle would have to be kept separate from other cattle during the testing period.

We believe that these requirements, when implemented, could improve the effectiveness of the interstate test procedures. However, data on their effectiveness and cost to the industry should be collected and analyzed to determine if additional changes are needed.

Mississippi said that the procedures to be effective January 1, 1982, if implemented properly, will certainly help in preventing the movement of animals incubating the disease. (See app. VI.)

Concerning the second recommendation, USDA said that the dealer licensing and recordkeeping provisions were approved in 1979 and were intended to be requirements in UM&R. Veterinary Services officials explained to us that the title "Recommended Procedures" in that part of UM&R was printed in error. The title was changed to "Procedures" by an amendment effective April 1, 1981, after the completion of our fieldwork. USDA said, however,

that due to the time-consuming procedures for implementing this action a few States have not yet completed the action.

USDA also said that a new system for certifying States was recommended by the Brucellosis Technical Commission and will become effective January 1, 1982. The Commission developed and recommended some broad guidelines for use in certifying States' disease status. One of the guidelines would require States to demonstrate effective surveillance of infected cattle and prevention of transmission of disease to other herds. USDA said that these broad guidelines were being developed into more specific guidelines, including dealer licensing and recordkeeping requirements, that will be implemented before January 1, 1982. USDA also said that States not implementing these requirements will be assigned a lower disease certification status. We believe that these specific guidelines, when developed and implemented, could improve the effectiveness of the dealer licensing and recordkeeping aspects of the program.

Concerning the third recommendation, USDA did not agree. USDA said that area veterinarians-in-charge, under the broad supervision of the regional director, are responsible for working in cooperation with the State veterinarian and the livestock industry in carrying out the brucellosis eradication program. To carry out this responsibility, they must have control over all phases of eradication activities. USDA agreed that compliance personnel must have freedom to carry out thorough and unobstructed investigations but said this should take place under the supervision of area veterinarians-in-charge rather than of officials in a central organization in Washington. In most States, according to USDA, it is necessary that the investigator work with State regulatory officials while making the investigation, and this work can be much better coordinated at the State level than from a central point.

As we explained on page 28, if a separate line function were created for compliance personnel, area veterinarians-in-charge could be kept apprised of enforcement activities within their areas by continuing to receive copies of investigation requests and reports. Our review showed that, in the absence of strong central direction and coordination, the timeliness and results of investigations were adversely affected. (See p. 27.)

VETERINARY SERVICES' ANIMAL HEALTH BUDGET AUTHORITYFOR FISCAL YEAR 1981

Domestic Animal Health Programs:	
Animal welfare	\$ 4,291,000
Brucellosis eradication	81,146,000
Emergency programs	3,000,000
Horse protection	313,000
Interstate inspection of livestock	4,283,000
Miscellaneous animal diseases and pests	2,673,000
National poultry improvement plan	184,000
Poultry diseases	984,000
Pseudorabies	539,000
Scabies eradication	2,688,000
Swine disease surveillance	3,110,000
Tuberculosis eradication	5,461,000
Veterinary diagnostics	5,287,000
	<hr/>
Total	<u>113,959,000</u>
Import and Foreign Disease Programs:	
Cattle ticks	4,578,000
Foot-and-mouth disease	2,171,000
Import-export inspection	5,509,000
Screwworm	42,652,000
	<hr/>
Total	<u>54,910,000</u>
	<hr/>
Total	<u>\$168,869,000</u>

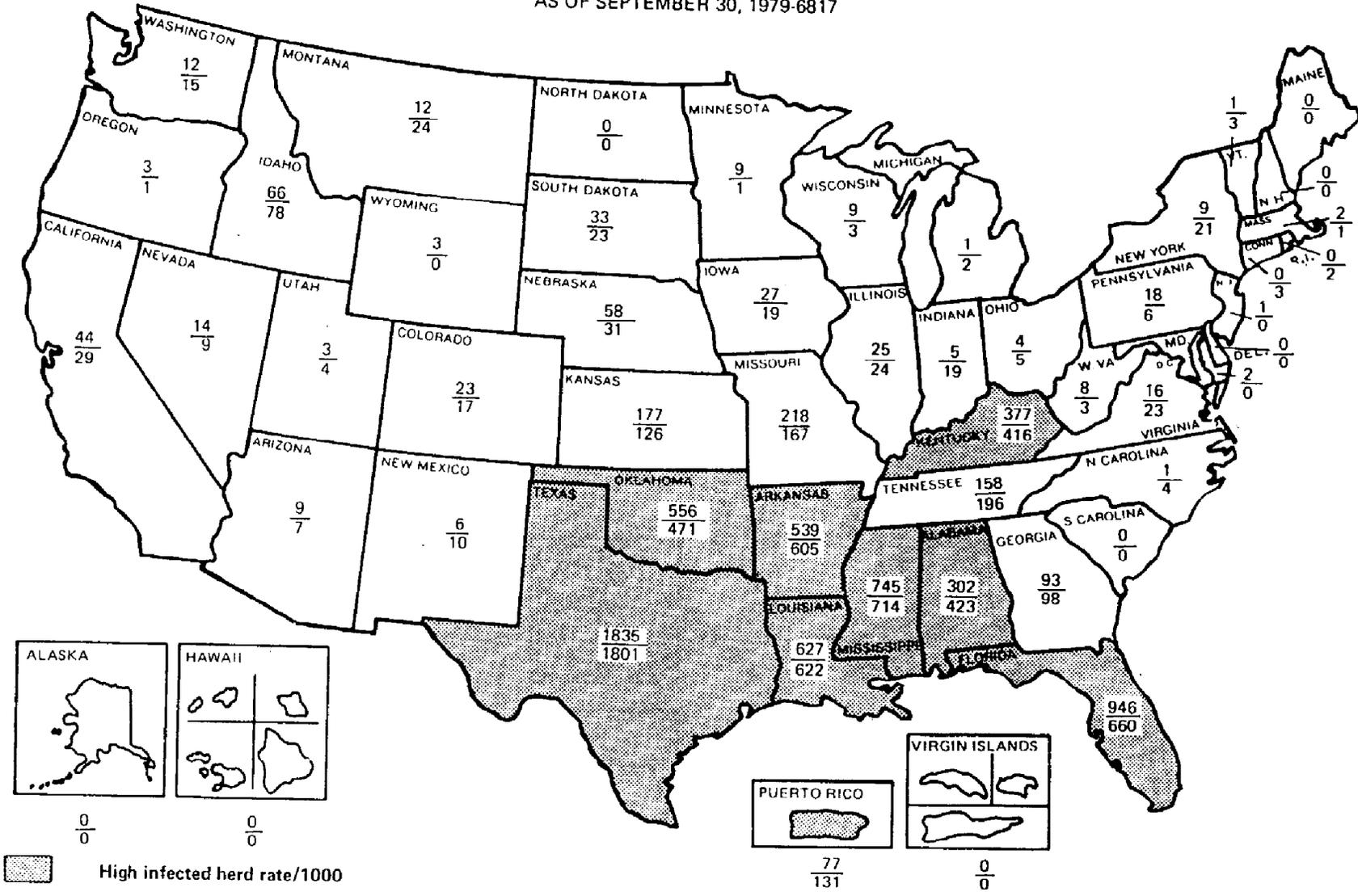
VETERINARY SERVICES'  
BRUCELLOSIS BUDGET AUTHORITY  
FOR FISCAL YEAR 1981

Overhead	\$17,461,446
Salaries and travel	17,035,980
Indemnity	20,000,535
Agreements with States	12,625,394
Testing fees at market and slaughter	1,979,902
Fees to private veterinarians for vaccinations and testing	3,241,700
Supplies and other costs	<u>8,801,043</u>
Total	<u>\$81,146,000</u>

# HERDS QUARANTINED BECAUSE OF BRUCELLOSIS

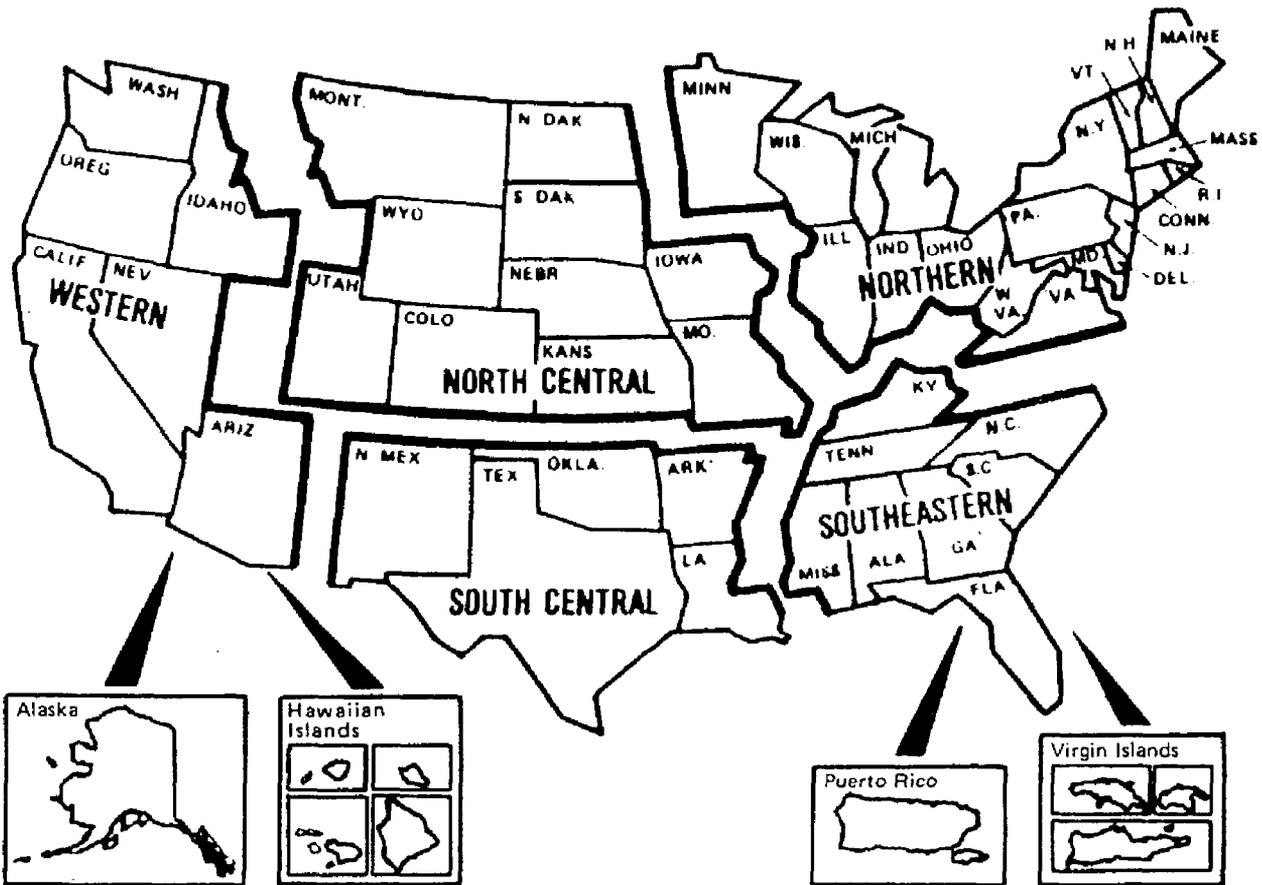
AS OF SEPTEMBER 30, 1980-7074  
AS OF SEPTEMBER 30, 1979-6817

37



SOURCE: Department of Agriculture

VETERINARY SERVICES REGIONS



U.S. Department of Agriculture

Veterinary Services

Animal and plant health inspection service



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection Service

Subject: GAO Draft Report Entitled "Department of Agriculture's Animal Disease Control Efforts Should be Improved"

Date: April 24, 1981

To: Henry Eschwege  
Director, Community and Economic  
Development Division  
General Accounting Office

We appreciate the opportunity to provide comments and additional information on the text of the subject report. Our discussion is limited to those areas which we feel may be unclear, misleading, or inaccurate, and to recommendations with which we disagree or which we feel cannot be carried out within the framework of a State-Federal cooperative program.

We are pleased with the thoroughness of the evaluation into the Brucellosis Eradication Program made by the reviewers. In looking at the present situation in this program, we would like to point out developments that have taken place during the past 5 years.

At the time the Secretary of Agriculture appointed the Brucellosis Technical Commission (BTC) in 1976, a commitment was made to the livestock industry that no major changes would be made in the Brucellosis Eradication Program until after the BTC completed their review. This commitment was kept. Their report was received in August 1978 and was immediately given to the United States Animal Health Association to review so they could recommend changes that were needed in the Uniform Methods and Rules (UM&R) or other areas of the program. Major changes were made in these UM&R in 1979 and 1980.

Provisions in the UM&R become minimum standards for operation of the program in each State. Each State must then obtain necessary legislation and regulations to implement these standards. In some instances, this can be done rather quickly, and in other cases it requires considerable time to complete these processes. The Animal and Plant Health Inspection Service (APHIS) is presently working with all States in getting these minimum standards in place.

Most of the recommendations contained in the draft report were also made by the BTC or have already been identified by APHIS, and corrective procedures have already been adopted or are being developed. Each recommendation will be addressed in detail after the final report is received.

Our commentary here is provided on a page-by-page basis.

Henry Eschwege

DIGEST [1/]

p. i--\$14 million should read \$114 million.

[GAO comment: Error corrected.]

p. ii--WEAKNESSES IN MANAGEMENT SYSTEMS--In the paragraph beginning "Animals sold at livestock markets," the second sentence compares infected herds with animals not traced. It would be more appropriate to compare reactors that were traced with reactors that could not be traced. It would then read: "Nationwide, 42,264 MCI [market cattle identification] reactors were traced disclosing 5,068 infected herds which were identified in fiscal year 1980 ...."

[GAO comment: Sentence revised.]

pp. iii and 17--We disagree with the statement that information is not collected and analyzed to measure progress. There are numerous methods for measuring progress toward program goals that are reviewed monthly and quarterly. These measurements do show that adequate progress has not been made in three of the States which were reviewed. These include measurements of infected animals as evidenced by the surveillance sampling rate, market cattle infection rate, the number of newly infected herds disclosed, BRT [brucellosis ring test] suspicious herd rates, and percentage of animals infected on the first test following suspicious BRT tests and MCI reactors.

[GAO comment: Statement revised to limit its scope to field organizations within the States.]

p. iv--third paragraph--See comments for page 24.

Page iv--fourth paragraph--The dealer licensing and recordkeeping provision was approved in 1979 and became a requirement in the Uniform Methods and Rules. Also, a new system for certifying States was recommended by the Brucellosis Technical Commission and will become effective on January 1, 1982. The Technical Commission developed broad guidelines that should be developed for Class A, B, and C States. One of these guidelines is that States must demonstrate effective surveillance and prevention of transmission to other herds. These broad guidelines are now being developed into more specific guidelines that will be implemented before January 1, 1982. Dealer licensing and recordkeeping

---

1/The remainder of the Department's letter was retyped to facilitate showing our comments. The page numbers were changed to reflect those in the final report.

Henry Eschwege

will be a requirement in these specific guidelines, and States not implementing this requirement will be assigned a lower status.

[GAO comment: See our evaluation on p. 33.]

p. v--first paragraph, second sentence--Information presented later in the report indicates the 51 cases were completed in an average of 19 months. The statement here indicates that actions generally were not completed within 19 months, therefore, would not appear to be consistent with their findings.

[GAO comment: Sentence revised.]

#### CHAPTER 1, INTRODUCTION

p. 1--third paragraph, first sentence. This sentence indicates that hog cholera was a foreign animal disease. Hog cholera, at the time an eradication program was started, was a domestic disease that had been in the United States for over 100 years and is an example of a domestic disease that was successfully eradicated. It is now considered a foreign disease.

[GAO comment: Sentence revised.]

p. 2--last paragraph, second sentence. The program was not accelerated in the early 1970s. During the period 1970 to 1975, funding was at a low level, and the infection rate was increasing. (During this period of time, our resources were directed toward eliminating hog cholera, exotic Newcastle disease, and Venezuelan Equine Encephalomyelitis.) It was during this period that the cattle industry began expressing concern about and opposition to the program, and it was during this period that the industry requested that a review be made of the program. The first significant appropriation increase for brucellosis eradication was received in 1975. The first accelerated programs were started in 1977; and in those States that were accelerated, there was very good industry support. The main point expressed by the industry during this period was that the program should be funded and carried out at a level that would lead toward eradication. The three States (Florida, Mississippi, and Texas) did not accelerate their programs to any significant degree during that period.

[GAO comment: Revised paragraph.]

Pages 3 and 4--bottom of 3 continued on 4. This paragraph does not adequately describe the manner in which Veterinary Services and the States enter into a cooperative animal health program such as brucellosis. Active participation is required by each State before VS provides resources to assist them with the program, and they must agree to carry out the minimum standards in the UM&R. Memoranda of Understanding are signed specifying the responsibilities of each. Cooperative agreements have been

Henry Eschwege

developed only during recent years in certain southern States to supplement the State and Federal work forces.

[GAO comment: Revised paragraph.]

p. 4--second paragraph, second sentence. "These regulations" should read: "These standards . . ."

[GAO comment: Revised as suggested.]

## CHAPTER 2, IMPROVEMENTS NEEDED IN MANAGEMENT SYSTEMS

p. 7--first item under first paragraph. This sentence is misleading. Unless the reader is thoroughly familiar with the program, this item may be interpreted to mean that no animals could be traced to herds of origin when, in fact, as explained later in the report, only a relatively small percentage could not be traced.

[GAO comment: Inserted "some" before "animals."]

p. 8--second paragraph, second sentence. This sentence also should be changed to read: "Nationwide, 42,264 MCI reactors were successfully traced disclosing 5,068 infected herds . . ."

[GAO comment: Sentence revised.]

p. 11--second paragraph, third sentence. The UM&R requires that a herd either be tested within 30 days or placed under quarantine.

[GAO comment: Revised as suggested.]

p. 14--third paragraph. The field personnel interviewed may not have indicated that they had received written instructions; however, instructions are developed and are available in the form of VS Memorandum 551.28, and many States supplement that with field manuals for each field employee.

[GAO comment: See our evaluation on pp. 14 and 15.]

p. 17--second paragraph, first sentence. This sentence is incorrect as stated. The present system was developed to include much more than these two points. The manual information system that has been in effect has been used to determine performance and measure progress, although probably not used as effectively as it could have been.

[GAO comment: Revised paragraph.]

The conclusions drawn on pages 17-19 and on page 22 in this draft report regarding the purpose(s) and utilization of the

Henry Eschwege

Brucellosis Information System (BIS) being developed appear to be based on observations and discussions of the Florida system and not on the national system. The national system is a comprehensive brucellosis recordkeeping system which will provide comprehensive program information including the areas described in this report. The national BIS program is being developed in stages but will include herd test records, market cattle identification and test records, vaccination records, brucellosis ring test records, indemnity records, epidemiology reports, and perhaps eventually interstate health certificate information when completed. The information gathered will be used to improve field operations by ascertaining animal movements between units of infected herds, accuracy of animal identification, completeness of herd tests, accountability for new or missing animals, and many more factors. Analysis of progress in numerous program areas will be possible using standard computerized reports. Identification of potential problem areas will be simplified by setting limits which will automatically flag unusually high or unusually low values. Examples of areas of concern are diversion of reactors from permitted destinations, retest schedules, post-movement quarantine and retest accomplishments, blood test result patterns, and so forth. Epidemiologic data on probable sources of infection, high risk herds, recognition of trends in disease distribution, etc., will also be possible and an expected result from the computerization of brucellosis records. Eventually, all States are expected to participate in a consolidated national system to gain maximum advantage of the information presently being collected but relatively inaccessible by manual or inadequate automated methods.

[GAO comment: See our evaluation on pp. 18 and 19.]

### CHAPTER 3, INEFFECTIVE AND UNENFORCED REGULATIONS . . .

Page 23--third paragraph, second sentence. The last part of this sentence, should read: ". . . however, some States have not enacted these provisions. In fact, the dealer licensing and recordkeeping requirement added to the UM&R was patterned after those in States which have effective dealer licensing and recordkeeping provisions."

[GAO comment: Revised sentence. See our evaluation on p. 33.]

p. 24--the section under TESTING OF ANIMALS MOVED INTERSTATE NEEDS . . . The Brucellosis Technical Commission and the U.S. Animal Health Association recommended a retest to be conducted from 30 to 150 days. Comments from large numbers of people, including technical experts on brucellosis, felt that 30 days was not sufficient time to detect so many exposed, incubating animals. VS officials agreed and increased the minimum waiting period to 45 days. Also, there were comments that 150 days would

Henry Eschwege

allow infected animals to remain undetected for too long a period so that additional cattle would be exposed and recommended that a maximum of 120 days be added. Infected herds are released after the herds have been negative for 120 days. These changes were not a compromise but were based on technical advice that these time periods were superior to the 30 to 150 days. The Brucellosis Technical Commission agreed that the 45-120 days would scientifically be a better approach. They had used the 30 to 150 days to allow greater freedom of movement.

[GAO comment: Revised second paragraph of this section.]

p. 25--fifth paragraph, last two sentences. This statement is not correct. Please see earlier comments on dealer licensing.

p. 25--sentence beginning with last line. These statements were misunderstood. Up to this point, we had been encouraging and working with States to enact dealer licensing provisions but positive action will be taken if they do not meet this requirement. The dealer licensing and recordkeeping provision is a required procedure in the UM&R, not a recommended procedure.

[GAO comment: See our evaluation on p. 33.]

### CONCLUSIONS

p. 32--first paragraph, second sentence. We do not agree with this statement. The greatest problem at present is with enforcement of the regulations, not with the test requirements. The new classification of States and serological test requirements that are to be implemented on January 1, 1982, are designed not only to increase the requirements but to make the requirements more enforceable.

p. 32--first item under RECOMMENDATIONS TO THE SECRETARY . . . Postmovement test requirements must be ones that can be accepted by the livestock industry and that can be carried out. The present requirement for one test between 45-120 days is recognized as the most effective time frame for a postmovement test. The Brucellosis Technical Commission recognized the fact that more than one postmovement test would be impractical and recommended improving the procedure by adding additional premovement tests. These tests will be required after January 1, 1982.

[GAO comment: See our evaluation on p. 33.]

p. 32--second item under RECOMMENDATIONS TO THE SECRETARY . . . This provision is already a requirement in the UM&R in certifying a State's disease status. However, due to the time-consuming



MISSISSIPPI BOARD OF ANIMAL HEALTH  
AND  
VETERINARY DIAGNOSTIC LABORATORY

2531 NORTH WEST ST. P. O. BOX 4389 JACKSON MISS 39216 PHONE 354-8089

April 29, 1981

JIM BUCK ROSS,  
COMMISSIONER OF  
AGRICULTURE & COM-  
MERCE CHAIRMAN

DR HARVEY F. MCGRORY,  
STATE VETERINARIAN  
AND DIRECTOR

DR BRYAN BAKER JR  
MISSISSIPPI STATE

PALL BATTLE  
TUNICA

DR H. JOE BEARDEN  
MISSISSIPPI STATE

LEE BRANCH  
TOXWORTH

SIDNEY BRANCH  
WINONA

J. D. BRANSCOME  
GRENADA

RAY R. CANNADA  
EDWARDS

H. E. CRAWFORD  
MERIDIAN

JAMES E. HILL  
MISSISSIPPI STATE

C. T. RAMZY  
CARTHAGE

DR JACK R. ROSS  
JACKSON

D. E. SCARBROUGH  
BARCAGOULA

L. H. STURGIS  
ENID

GOWMER H. VIRDEN, JR  
JACKSON

Mr. Henry Eschwege, Director  
United States General Accounting Office  
Washington, D.C. 20548

Dear Mr. Eschwege:

Recently you mailed to me a copy of a draft of your proposed report to the Secretary of Agriculture entitled, "Department of Agriculture's Animal Disease Control Efforts Should Be Improved," for comments. [1/]

The report is quite well prepared, but I will make a few comments. Page 23 - 2nd paragraph -- last sentence "However, these procedures still will not prevent inter-state movement of animals incubating disease." Those procedures referred to for adoption January, 1982, if adopted and implemented properly, will certainly help in preventing the movement of animals incubating the disease. The lack of a test to locate cattle incubating Brucellosis has and continues to be a major hurdle in moving cattle, especially from a high incidence area.

[GAO comment: Mentioned on p. 33.]

Page 23 - 4th paragraph -- "Veterinary Services, enforcement of disease control regulations must be more timely, and penalties must be commensurate with violations ...". To be more timely will require more State and/or Federal personnel. Increase for budgets of USDA are being trimmed and this also has been reflected in state budgets. For years, USDA has been getting freezes on personnel; our state is limited or frozen in employing more personnel by a budgetary line item for salary and a total number of employees by the personnel Board. As



1/In the remainder of the Board's letter, the page numbers were changed to reflect those in the final report.

Henry Eschwege

procedures for getting it in place, a few States have not yet completed this action.

[GAO comment: See our evaluation on p. 33.]

P. 33--third item concerning creating a separate line function for compliance personnel. We do not agree with this recommendation. The Area Veterinarian in Charge (AVIC) under the broad supervision of the Regional Director is responsible for working in cooperation with the State Veterinarian and the livestock industry in carrying out the Brucellosis Eradication Program. If the AVIC's are responsible for maintaining cooperation between these three groups, they must be able to have control over all phases of eradication activities. We are in full agreement that compliance personnel must have freedom to carry out thorough and unobstructed investigations but under the supervision of the AVIC rather than a central organization in Washington. In most States it is necessary that the investigator work with State regulatory officials while making the investigation. This can be coordinated at the State level much better than from a central point.

[GAO comment: See our evaluation on p. 34.]



Harry C. Mussman  
Administrator

for penalties, USDA is only involved in assessment of violations of accreditation of Veterinarians, financial obligations of markets by P. & S., approval or disapproval of markets under Part 78, and violations of movement of cattle that move interstate. The statues of the State set the penalties for violations of the hundreds of rules and regulations adopted as required by the U. M. & R. No state legislature in our part of the country can or will set penalties that would be commensurate with violations of disease control. Our penalties are misdemeanors with the bottom line of about \$25.00. Administratively levied fines? Do you want another OSHA organization?

[GAO comment: See our evaluation on pp. 26 to 29.]

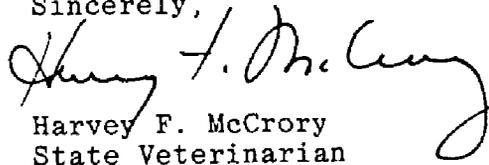
Page 24 - first paragraph -- "Testing needs to span the disease incubation period." The persons who wrote that statement evidently must be accountants or persons with no biological training. The incubation period of Brucellosis is variable, depending on so many unmeasurable factors. Ideologically, it would be great to span the tests over such a period, but an impractical and impossible task.

[GAO comment: See our evaluation on p. 24.]

Page 25 - first paragraph -- "Dealers follow good recordkeeping practices." We are working, as well as all other states, for legislation or regulations to this end.

[GAO comment: Recognized on p. 26.]

Sincerely,

  
Harvey F. McCrory  
State Veterinarian

## Texas Animal Health Commission

Sam Houston State Office Bldg.  
P.O. Box 12966  
Austin, Texas 78711



John W. Holcombe, DVM  
Executive Director

512/475-4111

May 6, 1981

### COMMISSIONERS:

John B. Armstrong,  
Chairman

Bob Baros

Ben W. Hopson

C.E. Knolle

Charles Koontz

T. Fuel Liner

Mort L. Mertz

Jimmy Owen

James D. Sartwell

Mr. Henry Eschwege,  
Director  
United States General Accounting Office  
Community and Economic Development Division  
Washington, D. C. 20548

Dear Mr. Eschwege:

I have reviewed the pertinent sections of your proposed report entitled "Department of Agriculture's Animal Disease Control Efforts Should Be Improved" which you forwarded to me. With minor exceptions I find the report to be accurate as to the facts as they are known. [1/]

One exception, shown on page 10, states that vehicle license numbers are not required at Texas markets. The Texas Animal Health Commission brucellosis regulations do require records at auctions and commission firms to show the delivery vehicle license number.

[GAO comment: Sentence revised.]

Some corrections have been made since the investigative portion of this report. One pertains to a female federal veterinarian who now has brucellosis program responsibilities in several counties; and, another is the publication of a handbook, a copy of which is attached, for the guidance of all personnel in the field.

[GAO comment: Recognized on pp. 10, 15, and 21.]

Thank you for the opportunity to review this draft. As spokesman for the Texas Animal Health Commission, I wish to commend this effort and state that in my opinion needed changes in leadership and direction for an efficient operation and a true cooperative effort will have to originate at the Department level. The dual program concept is an everyday problem to the State of Texas in livestock disease activities. Possible consideration should be given to federal funding being based in a manner similar to meat inspection in those states operating a

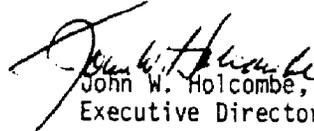
---

1/In the remainder of the Commission's letter, the page numbers were changed to reflect those in the final report.

cooperative program. This allows 50% of the program costs to be paid directly with federal funds to participating states in the operation of the program, directed by the state, using only state employees.

[GAO comment: See our evaluation on p. 21.]

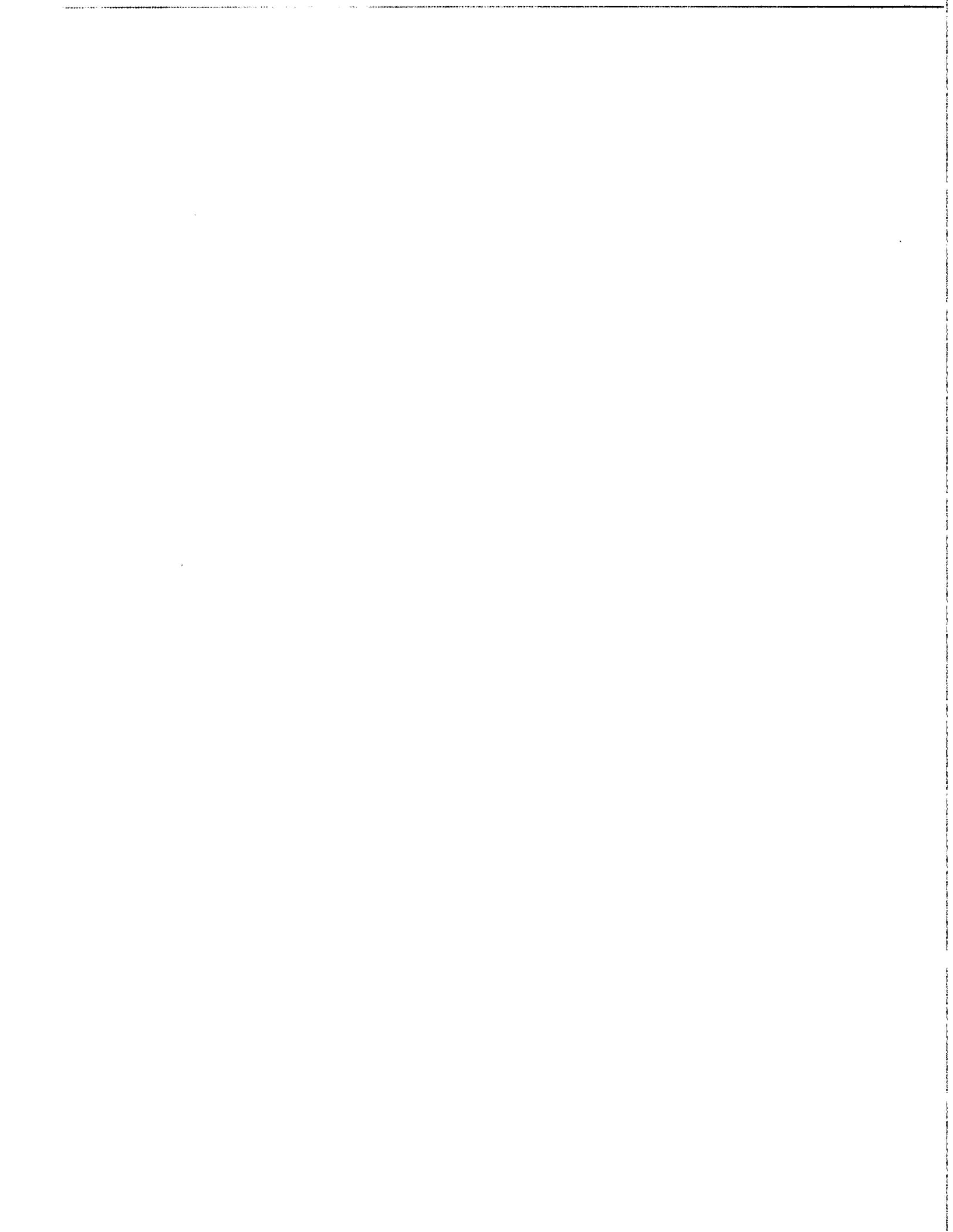
Yours truly,

  
John W. Holcombe, DVM  
Executive Director

JWH: jac  
Encis.

cc: TAHC Commissioners





**AN EQUAL OPPORTUNITY EMPLOYER**

**UNITED STATES  
GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548**

**OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300**

**POSTAGE AND FEES PAID  
U. S. GENERAL ACCOUNTING OFFICE**



**THIRD CLASS**