Cattle Health Business Plan
Fiscal Years 2017 to 2021
Animal and Plant Health Inspection Service
Veterinary Services

I. Program Description:

APHIS supports cattle and bison health and the associated industries through domestic and global programs and partnerships that address a range of priority diseases issues.

A. Program Goals and Objectives:

The overarching goal of the Cattle Health Program is to partner with State, industry, allied Federal agencies, Tribal governments, and other stakeholders to rapidly detect significant diseases or other incidents that could affect the U.S. cattle and bison population, harm human and/or environmental health and damage the economy. Prevent the introduction and spread of any detected devastating disease or endemic cattle and bison diseases of concern, and conduct surveillance to find animal diseases or animal health incidents. Provide confidence to our international trading partners that certain diseases or animal health related issues do not exist in the U.S. cattle and bison population or cattle and bison in defined regions of the U.S., thus facilitating trade. The capabilities developed to respond to cattle and bison diseases may also be utilized to respond to other cattle and bison health emergencies (e.g., natural disasters, terrorist incidents, etc.).

Core Objectives:

- Objective 1: Protect cattle and bison health through prevention, preparedness, and communication.
- Objective 2: Conduct monitoring and surveillance to rapidly detect endemic, emerging and foreign animal diseases.
- Objective 3: Prevent the spread of diseases of concern through rapid response and containment.
- Objective 4: Develop and implement strategies for business continuity, mitigation, and recovery
- Objective 5: Support international trade of cattle, bison, their genetics and their products

B. Program Components:

Cattle Health Program components include the National Tuberculosis (TB) Eradication program, the National Brucellosis Eradication program, the cattle fever tick (CFT) program, and the Bovine Spongiform Encephalopathy (BSE) Ongoing Surveillance Program. An additional activity is the development of a cattle and bison comprehensive and integrated surveillance plan that will build upon the existing surveillance system. A comprehensive plan will increase the Agency's ability to detect and prevent the spread of endemic, emerging, re-emerging, and

foreign animal diseases or other animal health incidents that could have a negative impact on the health and economics of the U.S. cattle and bison population.

Ongoing Cattle and Bison Health Program activities in support of the core objectives include:

- Provide coordination and oversight of cattle and bison health activities to prevent the introduction and/or spread of program diseases at all levels with continual collaboration among various units within VS, APHIS and the USDA as well as with other Federal and State agencies.
- Respond to incidents of emerging, reemerging and program diseases including testing, epidemiological investigations, post-exposure monitoring, disposal of high-risk animals/herds, indemnification and cleaning and disinfection in accordance with program regulations and standards.
- Conduct targeted surveillance around geographic areas where a domestic program, emerging, or foreign animal disease (FAD) has been identified in livestock or wildlife
- Coordinate with NVSL to conduct diagnostic testing and support (serology; bacteriologic and viral culture; and identification and genotyping of isolates) for all VS activities affecting the U.S. cattle and bison population

Internationally, APHIS supports the cattle and bison industry through programs that prevent the entry of foreign animal diseases into the U.S. and that address trade concerns. APHIS has both active disease prevention and control programs along with daily monitoring activities that help contain disease threats. APHIS officials stay current on diseases circulating throughout the world, either via bilateral relationships or through partnerships with international organizations, such as the Food and Agricultural Organization of the United Nations (FAO). APHIS also has personnel posted overseas to work with foreign government counterparts in key locations on control of specific diseases that could threaten the United States. Specifically, APHIS maintains agreements with governments in the Western Hemisphere on Foot and Mouth Disease (FMD) and Screwworm surveillance and control and in working towards developing a cooperative regional surveillance and emergency response plan. Where available external support exists, APHIS personnel support global efforts in FMD control.

To support safe international trade APHIS veterinarians and trade specialists, both domestic and overseas, work with foreign counterparts to address sanitary barriers to trade. They negotiate the terms of trade and specific certificate language that allows commodities to enter foreign markets and for foreign commodities to enter the US market safely. They respond quickly when a shipment of animals or animal products is held at a port of entry due to a sanitary issue. APHIS also maintains an active presence at the World Organization for Animal Health (OIE) to promote the adoption of science-based regulatory standards on diseases of concern to cattle, beef and animal products trade, such as BSE and FMD.

C. Funding Sources:

The Cattle Health Program is funded through the congressionally appropriated cattle health commodity line within the USDA's Animal and Plant Health Inspection Service (APHIS) budget. The fiscal year (FY) 2017 funding level for Cattle Health is approximately $92.5 million. This funding supports both cattle and bison health protection, mitigation, and response activities as well as the APHIS screwworm program.

II. Value of Cattle Health Program

The cattle and bison health program has been successful in protecting the U.S. cattle industry valued at $60 billion (NASS, 2015) and the U.S. bison retail and foodservice business valued at $340 million (National Bison Association May 2016) from economic loss by rapidly detecting foreign, emerging, re-emerging, or domestic program diseases and in preventing their spread. According to the 2012 Census of Agriculture, almost one-half of the 2.1 million farms in the United States (913,246) were cattle and calf operations. Only a small number of cattle operations (64,098) were dairies (milk production). The USDA defines a cattle operation as any place having one or more head of cattle on hand at any time during the year. (NAHMS 2015).

The detection of an emerging or foreign animal disease (FAD) in the U.S. cattle and bison population could have a devastating effect on these industries and the U.S. economy as a whole. A 2008 article, *Economic Impacts of a Foreign Animal Disease*, stated that the total losses to livestock-related enterprises from the introduction of a FAD over 4 years would range between $2,773 million and $4,062 million, depending on disease intensity level, duration of the outbreak, and the response scenario. (Paarlberg, 2008).

The Cattle Health Program eradicated New World Screwworm (NWS) (*Cochliomyia hominivorax*) from the United States using sterile insect technology (SIT) in 1966. Wyss (2000) estimated annual producer benefits in the United States of being NWS-free to be $870 million in 1999 dollars ($1,130 million in 2017 dollars). These benefits are derived from decreases in animal deaths, the cost of veterinary services and medicines, insecticides, and inspections and handling, coupled with significant increases in meat and milk production. The total effect on the general economy of producer benefits was estimated at $3.0 billion. The country remained free of NWS until October of 2016 when it was confirmed in Key deer from the National Key Deer Refuge in Big Pine Key, Florida. This was the first local infestation in the United States in more than 30 years. This recent case shows the importance of being vigilant in conducting surveillance for this disease. A 2014 USDA publication estimated that if New World Screwworm were to become established in the U.S. again, it could cause more than $1 billion in losses for our country's livestock industry. (Veterinary Services, 2014)

Ongoing BSE surveillance information from APHIS' Cattle Health Program has been instrumental in allowing the United States to maintain its beef export market worth approximately $5.6 billion per year (NASS, 2015). The BSE surveillance program was also a critical component of the U.S. effort to attain negligible risk status for BSE, which was granted by the OIE in May 2013. With the change to negligible risk status, APHIS was able to reduce the BSE surveillance-sampling target from 40,000 to 25,000 cattle tested each year, with 26,538 cattle tested in FY 2016. The modified BSE surveillance efforts reduce the overall cost while maintaining surveillance at levels that continue to exceed international standards. The program will undergo a comprehensive program review in 2017 to ensure samples are collected from the cattle populations where the disease is most likely to be detected, to improve geographical distribution and to improving the quality of samples collected. This can potentially lead towards for further reduction in sample numbers while continuing to exceed OIE surveillance standards.

The Cattle Health Program has also been highly successful in eradicating endemic diseases, such as bovine brucellosis, from cattle and privately owned bison. Wildlife in the Greater Yellowstone Area (GYA) remains the last known reservoir of bovine brucellosis in the country. The benefits of eradicating bovine brucellosis have been estimated to be greater than $18.3 billion (Paarlberg, 2008). An economic analysis conducted by the State of Wyoming indicated that should bovine brucellosis eradication efforts in cattle be discontinued, the costs of producing beef and milk

would increase by an estimated $80 million annually in less than 10 years (Bittner, 2004). With the successful eradication of bovine brucellosis in cattle and privately owned bison, the program is streamlining surveillance efforts while ensuring that surveillance activities yield data sufficient to demonstrate a national disease-free status to trading partners.

The Cattle Health Program also continues to make progress in eradicating TB from domestic livestock. A study conducted by Iowa State University suggests that more than $13 billion has been returned to the U.S. economy in terms of avoided economic losses since the bovine TB eradication program began (Palmer, 2011). Instead of whole-herd depopulation being the primary method of managing TB affected herds, APHIS now bases its approach on the circumstances surrounding each herd. For those herds where depopulation is not recommended, the herd undergoes a test-and-remove protocol, saving significant Federal dollars while continuing to eliminate the disease. This approach is also used in the bovine brucellosis eradication program.

III. FY 2017-2021 Implementation

FY 2017 HIGHLIGHTED ACTIVITIES

Cattle Fever Tick – Finalize a Cattle Fever Tick Strategic Plan
Tuberculosis – Revise the TB strategic plan
Indemnity – Finalize the Indemnity Review Charter and initiate cross-commodity indemnity discussions
Consistency - Collaborate with FSIS to ensure policy documents are consistent between FSIS and APHIS with particular focus on foreign animal disease response prior to and during an outbreak
Continuity of Business - Support the Secure Food Supply initiatives and efforts by the beef, dairy and bison industries in establishing continuity of business plans for FADs to quickly re-establish trade in the event of a FAD outbreak
FAD crisis drills - Roll out the process and goals for conducting FAD crisis drills to VS' District Directors and Assistant Directors which will aid in maintaining the abilities of FADDs
Cattle Comprehensive and Integrated Surveillance (Cattle CIS) – Finalize a stakeholder outreach strategy
Cattle Health Communication Plan (for CHC Business Plan) – Finalize a communication plan that provides effective stakeholder engagement to facilitate achieving the Cattle Health Business Plan's objectives
New World Screwworm (NWS) - Provide support for conducting additional surveillance and outreach in Florida due to the recent NWS outbreak
Animal Disease Traceability (ADT) a. Provide an assessment of the ADT Program and the effectiveness of CFR Title 9 Part 86, Animal Disease Traceability, in spring 2017 to enhance our tracing capabilities for emergency response, disease control, and eradication programs b. Support ADT and LPA staff in conducting in-depth outreach and feedback efforts via district-wide and national forums with stakeholders to identify opportunities to advance animal disease traceability c. Convene State and Federal working group to determine obstacles to and draft plan to improve collection and correlation of identification at slaughter
Bluetongue Virus (BTV) - Complete serologic surveillance for BTV on 6,600 cull cows from already existing brucellosis surveillance samples. The data obtained will be used to estimate the

State-level prevalence of surveyed states to better inform the current geographic boundary of bluetongue virus in the U.S.

A. **Objective 1: Protect cattle and bison health through prevention, preparedness, and communication**

Strategy 1: Prevention and preparedness – Design and implement activities to enhance the Cattle Health Program's ability to prevent the introduction of foreign animal diseases or outbreaks of endemic, re-emerging, or emerging diseases of concern in the United States and to maintain readiness to respond.

2017 Activities

a. Provide coordination and oversight of cattle and bison health activities to prevent the introduction and/or spread of program diseases at the national and district levels with continual collaboration and communication among various units within VS, APHIS and the USDA as well as with other Federal and State agencies.
b. Prepare and practice animal health and all-hazard response plans in coordination with States, Federal agencies, industry, Tribes, and other stakeholders.
c. Conduct surveillance and release of sterile screwworm flies in response to the outbreak of screwworm in Monroe and Dade Counties, Florida.
d. Work with the National Preparedness and Incident Coordination Center (NPIC) and the VS Training and Exercise Program (VS TEP) Working Group in developing a Corrective Action Program for VS (VS TEP Event 3.4.1.).
e. Provide training on the National Environmental Policy Act (NEPA) to VS, SPRS personnel. Collaborate with PPD ERAS staff to deliver NEPA and ESA training specific to the CFTEP as well as basic NEPA and ESA training for VS.
f. Support research through STAS-Wildlife Livestock Disease Interaction Team (WiLDIT) to better understand brucellosis transmission and prevention in elk and bison.
g. Create and implement a U.S./Mexico strategic plan for controlling cattle fever ticks.
h. Provide draft frameworks for the Emerging Animal Disease Preparedness and Response Plan and the U.S. National List of Reportable Animal Diseases for stakeholder comment.

FY 2018-2021 Activities

a. Continue any FY 2017 multi-year activities.
b. Develop, improve, and evaluate, in conjunction with Federal, State, Tribal, and academic, and industry stakeholders new and existing technologies for preventing and controlling diseases in domestic cattle and bison.
    i. Collaborate with the ADT program by developing pilot projects that utilize the latest technologies in cattle and bison identification devices.
    ii. Incorporate new preventative and systematic treatment options as they become available such as anti-tick vaccines for CFT program.

c. Integrate disease and vector modeling into preparedness and biosecurity hazard planning to enhance the program's ability to predict, mitigate, and adapt to adverse conditions such as the potential spread of Cattle Fever Ticks.
d. Continue to review and update plans, standard operating procedures and guidance documents in preparation for responding to endemic, re-emerging, foreign, and emerging disease events impacting domestic cattle and bison.

Strategy 2: Communication – Routinely exchange information with State, Federal, industry, Tribal, and other stakeholders.

FY 2017 Activities

a. Work with APHIS Legislative and Public Affairs (LPA) to post stakeholder announcements and use GovDelivery along with other outreach tools to make science-based documents available. Potential documents include:
   i. Risk assessments, and surveillance plans for brucellosis, CFT, TB, and other diseases of concern.
   ii. Business continuity plans.
   iii. Information management during emergency events.
   iv. Updated standardized program reports and monthly, quarterly, and/or annual reports for stakeholders such as descriptive program reports, surveillance test results, and annual animal health reports.
b. Increase collaborations on cattle and bison health issues with other stakeholders including State and other Federal agencies, Tribes, Universities and with OIE and other countries such as maintaining an updated SharePoint site for the exchange of information between FSIS and APHIS.
c. Provide guidance to State Departments of Agriculture on the disposition, monitoring, and disposal of cattle and bison when appropriate, such as a radiation emergency, in order to facilitate a return to sustainable marketability of the national herd.
d. Provide feedback to stakeholders based on information and data that they have provided to VS.

FY 2018-2021 Activities

a. Continue any FY 2017 multi-year activities.
b. Assist the ADT program with delineating enhanced traceability requirements.
c. Work with State, Federal, industry, Tribal, and other stakeholders to develop and disseminate information about disease risk, biosecurity, antimicrobial resistance, surveillance, and certification activities that could affect cattle health, industry productivity, and/or food safety.
d. Lead discussions concerning cattle and bison health issues with State, Federal, and Tribal animal health officials and other stakeholders through attendance at meetings and conferences and by seeking input in prioritizing cattle and bison health goals.
e. Conduct or support outreach to partners to promote APHIS cattle and bison health activities.

B. **Objective 2: Conduct monitoring and surveillance to rapidly detect endemic, emerging and foreign animal diseases.**

Strategy 3: Monitoring and surveillance – Continue to utilize new or improved scientific information and technologies to transition the current surveillance system to a more comprehensive and integrated surveillance system.

FY 2017 Activities

a. Continue working with stakeholders to finalize a national cattle and bison comprehensive and integrated surveillance plan.
b. Work to create electronic versions of all testing and vaccination forms, an electronic Mobile Information Management (MIM) interstate Certificate of Veterinary Inspection (CVI), and expanding MIM from the current Windows Mobile platform to include other common mobile operating systems.
c. Convene State and Federal working group to determine obstacles to the collection and correlation of identification at slaughter.
d. Work with FSIS to ensure compliance with existing performance standards for surveillance of TB at slaughter (i.e., 1 submission per 2,000 adult cattle slaughtered) and achievement of national submission goals (i.e., at least 10,000 granuloma submissions from slaughter).
b. Conduct national bovine brucellosis surveillance at an appropriate level to detect a 0.001 percent or higher prevalence level (1 or more infected animals per 100,000 adult cattle and bison) among the U.S. cattle and bison population with 95 percent confidence.
c. Conduct surveillance in U.S. cattle at a level that achieves or exceeds OIE recommendations for BSE surveillance.
d. Support ADT staff and NIES with an Ultra-High-Frequency identification tagging project in feeder cattle imported from Mexico to better monitor identification and movements of imported cattle to provide enhanced traceability to State Animal Health Officials.
e. Improve traceability by expanding the capability of MIM to scan multiple frequencies of ID tags, store them in the MIM software, and collect data on multiple operating system platforms.
f. Support the development of modular, radiological monitoring technologies for FSIS regulated slaughter facilities to promote domestic and international consumer confidence following a radiation emergency.
g. Conduct a thorough surveillance system evaluation for BSE to evaluate system effectiveness and cost-effectiveness.
h. Support the National Animal Health Monitoring System (NAHMS) 2017 Antimicrobial Use in U.S. Beef Cattle Feedlots study.

FY 2018-2021 Activities

a. Continue any FY 2017 multiyear activities.
b. Cattle and bison comprehensive, integrated surveillance - Prioritize information technology improvements related to data management, including data acquisition, management and aggregation of data from multiple streams, and access and utilization of data by a range of user groups.
c. Conduct thorough surveillance system evaluations for brucellosis and tuberculosis to assess effectiveness.

d. Work with other animal-sector commodities to improve integration of cross-species disease surveillance activities.
e. Promote ongoing monitoring/reporting via the National List of Reportable Animal Diseases and/or National Animal Health Reporting System (NAHRS).
f. Continue to work in conducting surveillance for emerging disease threats which could impact the U.S. cattle and bison industry.
g. Support the National Animal Health Monitoring System (NAHMS) 2017 Beef Cow-calf study.

Strategy 4: Detection – Implement strategies to decrease the time required to identify diseases, including detecting, characterizing, and transparently reporting disease threats at the earliest possible moment.

FY 2017 Activities

a. Collaborate with the Department of Homeland Security and other Federal and State agencies and other stakeholders on biosurveillance activities to include active data-gathering in order to achieve early warning of health threats, early detection of health events, and overall situational awareness of disease activity
b. Work in collaboration with our international stakeholders to monitor the global animal health landscape for potential threats, assess the risk posed by a possible emerging disease in the United States and gather information upon which to base the response.

FY 2018-2021 Activities

a. Continue any FY 2017 multiyear activities.
b. Evolve and enhance our national biosurveillance enterprise efforts by:
    i. Extending electronic reporting of cattle and bison health information, including laboratory results, to rapidly communicate useful information.
    ii. Leverage social media and widely available tools to facilitate rapid information sharing domestically and globally.

C. Objective 3: Prevent the spread of diseases of concern through rapid response and containment.

Strategy 5: Response and Containment – Rapidly and effectively react to incursions or spread of endemic, or foreign animal diseases and vectors to limit negative impact.

FY 2017 Activities

a. Quickly respond to incidents of potential foreign, emerging, re-emerging, and domestic program diseases including testing, epidemiologic investigations, post-exposure monitoring and disposal of high-risk animals/herds where appropriate, and ensuring proper cleaning and disinfection of premises.
b. Prevent the spread of disease through quarantine of infected and exposed animals; movement controls in the infected zone(s) and buffer zone(s); and biosecurity procedures to protect non-infected animals.
c. Conduct targeted surveillance around geographic areas where a domestic program, emerging, or foreign animal disease has been identified in livestock or wildlife

d. Provide indemnity for diagnostic purchases of animals and whole-herd depopulations when appropriate.
e. Complete epidemiological modeling and cost comparison analyses to guide decisions regarding the implementation of herd depopulation versus test-and- remove protocols.
f. Continue to work with the Greater Yellowstone Area States to implement brucellosis management plans for affected herds and begin an annual review process of each GYA state on a 3-year rolling basis. Complete first state-level review by early fall 2017.
g. Continue collaborating with ARS, Wildlife Services and other stakeholders in eradicating CFT from the United States through activities such as the inspection and removal of ticks from exotic nilgai and white-tailed deer in southern Texas and to mitigate spread to other areas.
h. Ensure the continued supply of cattle fever tick vaccine by working with ARS, industry, and international partners to find a permanent vaccine manufacturer.
i. Finalize and implement the Emerging Animal Disease Preparedness and Response Plan.

FY 2018-2021 Activities

a. Continue any FY 2017 multiyear activities.
b. Work to increase the resistance of susceptible animals to a disease and/or reduce the shedding of the disease agent in infected or exposed animals when needed through emergency vaccination, if a suitable vaccine is available and can be administered in a timely manner.
c. Work with APHIS' National Preparedness and Incident Coordination Center (NPIC) to maintain procedures for how FMD vaccine will be obtained in the event of an outbreak; obtain FMD vaccine, explore new or improved vaccination technologies, and continually update vaccination strategies for use in an outbreak.
d. When and where appropriate, eradicate emerging, re-emerging, endemic, and foreign animal diseases that impact the cattle and bison industries.
e. Develop an anti-tick vaccine delivery system development for white-tailed deer and nilgai for the CFT program.

D. Objective 4: Develop and implement strategies for business continuity, mitigation, and recovery

Strategy 6: Continuity of business, mitigation, and recovery – Develop and implement strategies to minimize the disruption of trade; reduce the loss of cattle and bison in incidences of endemic, emerging, re-emerging and foreign animal diseases; and to focus on the timely restoration of cattle and bison herds affected by disease.

FY 2017 Activities

a. Partner with other Federal Agencies, States, Tribes, universities, and industry to develop, maintain, and exercise response and continuity of business plans and guidance documents.
b. Collaborate with stakeholders to develop management plans to mitigate the risk for spread of diseases such as brucellosis, CFT, TB, and other diseases of concern between domestic cattle and bison and wildlife.

c. Support National Preparedness and Incident Coordination Center (NPIC) in implementing the VS Emergency Management Training and Exercise Plan activities and One Health and Global Health endeavors to mitigate and eliminate the impacts of zoonotic diseases on public health, cattle and bison health, and national and international trade.

FY 2018-2021 Activities

a. Continue any FY 2017 multiyear activities.
b. Conduct proactive risk assessments that consider existing production practices for foreign animal diseases such as FMD.
c. Develop and implement management plans to decrease the risk for spread of diseases such as brucellosis, CFT, TB, and other diseases of concern between cattle and bison and wildlife.
d. Conduct up to 5 TB pre-certification reviews and 5 APHIS verification reviews in Mexico to properly assess disease risks.
e. Implement mandatory anti-tick vaccination of all cattle and bison herds located within the permanent quarantine buffer zone.

E. Objective 5: Support international trade of cattle, bison, their genetics, and their products

Strategy 7: Prevent the introduction of foreign animal diseases in the cattle and bison industry.

FY 2017 Activities

a. Continue trade facilitation between the United States and Mexico, primarily represented by the Secretaria de Agricultura, Ganaderia, Desarrollo Rural, Pesca y Alimentacion (SAGARPA):

   i. Conduct up to 5 TB pre-certification reviews and 5 APHIS verification reviews in Mexico to properly assess disease risks.
   ii. Meet bi-annually with the U.S. and Mexican stakeholders who, along with APHIS and SAGARPA representatives, comprise the Bi-National Commission (BNC) to discuss import and export between the two countries.
   iii. Collaborate with SAGARPA to update the joint Bovine TB Strategic Plan.
   iv. Collaborate with SAGARPA to develop a joint Cattle Fever Tick Strategic Plan.
   v. Continually evaluate the disease risk status of Mexican regions, to ensure that associated restrictions are appropriate to mitigate disease introduction and remove unnecessary restrictions to facilitate trade.
   vi. Implement, as approved by APHIS and USDA, the “M” brand rule that will reduce the number of animals refused U.S. entry due to misbranding, and reduce damage to the hides through re-branding.

b. Create an emergency transit protocol, with the Canadian Food Inspection Agency, to facilitate transit across for situations when animals must be routed across country borders, due to bridge outages, storms, etc. Identify new technologies to enable safer and more customer-friendly cattle import/export processes.

IV. Abbreviations

ADT	Animal Disease Traceability
APHIS	Animal and Plant Health Inspection Service
BSE	Bovine Spongiform Encephalopathy
CDC	Centers for Disease Control and Prevention
CEAH	Center for Epidemiology and Animal Health
CFT	Cattle Fever Tick
EPS	Enhanced Passive Surveillance
FAD	Foreign Animal Disease
FADD	Foreign Animal Disease Diagnostician
FDA	Food and Drug Administration
GYA	Greater Yellowstone Area
IIAD	Institute for Infectious Animal Diseases
LPA	Legislative and Public Affairs
MIM	Mobile Information Management
MOU	Memorandum of Understanding
NAHMS	National Animal Health Monitoring System
NPIC	National Preparedness and Incident Coordination Center
NVAP	National Veterinary Accreditation Program
NWSW	New World Screwworm
OIE	World Organisation for Animal Health
PHIS	Public Health Information System
SPRS	Surveillance, Preparedness, and Response Services
STAS	Science, Technology, and Analysis Services
TB	Bovine Tuberculosis
VS	Veterinary Services

V. Definitions

Domestic program disease – an endemic disease for which VS has an eradication and/or control program.

Emerging disease: A disease, infection, or infestation in domestic or wild animals that is a threat to terrestrial animals, aquatic animals, or humans, and meets one of the following criteria:

1. An unknown agent that is causing disease, infection, or infestation in a herd/flock/premises and has the potential to result in a significant animal or public health impact, and applied diagnostic tests have yielded negative or non-definitive results; OR
2. A newly identified agent that is causing disease, infection, or infestation in a herd/flock/premises and has the potential to cause significant animal or public health impact, or is occurring in multiple herds/flocks/premises; OR
3. A previously identified or known pathogenic agent that has a change in epidemiology, such as:
    a. Increased pathogenicity,
    b. Expanded host range,

c. Change in geography of an agent with the potential to cause a significant animal or public health impact, or
d. Unexpected morbidity/mortality

Endemic disease – a disease that is found in the U.S. such as trichomoniasis or bovine viral diarrhea and includes domestic program diseases such as bovine tuberculosis or bovine brucellosis.

Foreign animal disease – a transboundary animal disease not known to exist in the U.S. domestic cattle and bison population.

Re-emerging disease – a new strain, new location, or an increased level of detection of a disease.

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