

MEMORANDUM OF UNDERSTANDING (MOU)
BETWEEN THE
HAWAII DEPARTMENT OF AGRICULTURE (COOPERATOR)
AND THE
UNITED STATES DEPARTMENT OF AGRICULTURE (USDA)
ANIMAL AND PLANT HEALTH INSPECTION SERVICE (APHIS)
VETERINARY SERVICES (VS)

ARTICLE 1 – PURPOSE

The purpose of this Memorandum of Understanding (MOU) is to establish an agreement between the Hawai'i Department of Agriculture (HDOA) and the US Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services (USDA APHIS VS), on the requirements and responsibilities for maintaining Hawai'i's Accredited Free state status regarding the risk of bovine tuberculosis (bTB) pursuant to Title 9, Code of Federal Regulations (CFR) Part 77, and the Tuberculosis Eradication Program's Uniform Methods and Rules, effective January 1, 2005, (UM&R). This MOU outlines the framework for implementing and assessing strategies that address bTB in both livestock and wildlife in Hawai'i with the objective of maintaining Accredited Free status.

ARTICLE 2 – BACKGROUND

The island of Moloka'i is the fifth largest island of the eight major islands that comprise the state of Hawai'i. It is one of the smaller islands consisting of 260 square miles with an estimated population of 7,345¹ people. Moloka'i is located approximately eight miles Northwest of Maui and approximately 25 miles Southeast of O'ahu, in the Pacific Ocean.

The first known infection of bTB in Hawai'i occurred in 1941 in East Moloka'i, at Pu'u O Hoku Ranch. Thereafter, between 1965 through 1985, multiple ranches in Moloka'i were infected, tested, depopulated and reinfected. Moloka'i was completely depopulated of cattle in 1985 in an attempt to eradicate bTB from cattle on the island. No cattle were restocked for one year after depopulation. Moloka'i remained free of bTB detection until 1997 when a single cow from a beef cattle herd on the East end was found infected. The infected cow was identified at slaughter, and originated from 'Ualapu'e, Moloka'i. The owner's herd of 450 head was tested and depopulated; however, no additional animals with lesions were found. The investigation that followed resulted in 4,922 head being tested from 25 herd tests on Moloka'i and Maui. No other infected animals were found.

A Moloka'i TB management plan was subsequently implemented by the state of Hawai'i in conjunction with USDA in 1997. Wildlife surveillance conducted between 1998 and 2012 detected twenty (20) bTB infected feral swine in eastern Moloka'i focused primarily in an area within a two-mile radius of 'Ualapu'e. Based on findings from wildlife surveillance, HDOA initiated annual whole herd testing of cattle herds in eastern Moloka'i. Passive wildlife surveillance continued after 2012 through laboratory testing of hunter harvested wildlife and slaughter under FSIS inspection at

¹ https://files.hawaii.gov/dbedt/census/Census_2010/PL94-171/Island_Report_Final.pdf

the Moloka`i Livestock Cooperative. Moloka`i Livestock Cooperative and additional FSIS inspected plants on other islands routinely process Moloka`i origin livestock. No additional bTB detections were found in Moloka`i livestock between 1997 and 2021.

The first new detection of bTB in livestock on Moloka`i after 1997 occurred in June 2021 as the result of mandatory whole herd testing of a cattle herd moving between eastern and central Moloka`i. Investigation and subsequent testing of trace herds and contact herds identified a second affected herd that had direct contact with the first. Both herds were classified as affected and depopulated with USDA approval and indemnification.

In November 2021, a third new bTB affected mixed herd in Western Moloka`i consisting of swine, cattle and sheep was identified through FSIS inspected slaughter of pigs originating from the herd. The VS Deputy Administrator approved classification of the mixed herd as affected and it was depopulated with USDA indemnity. In the resulting investigations, HDOA identified and conducted whole herd testing on three contact cattle herds and one trace-out cattle herd. Positive animals were found in each contact herd, but the trace-out herd was negative. HDOA immediately placed each herd under hold order and subsequently placed quarantine on each premises, when National Veterinary Services Laboratories (NVSL) confirmed infection. All herds with confirmed infection were classified as affected and approved for depopulation with USDA APHIS VS indemnity. In addition to individual herd quarantines that were put in place upon detection, a quarantine order was placed on the entire island on April 8, 2022 (refer to D in Article 5).

Federal regulations require that a State enter into an MOU with USDA APHIS VS in which the state agrees to adhere to any condition for recognition particular to the request (9 CFR 77.4) within the Cooperative Tuberculosis Eradication Program.

ARTICLE 3 – AUTHORITIES

USDA APHIS VS has the authority to control and/or eradicate bTB under the Animal Health Protection Act, in section 10411 (7 USC 8310) and in 10409 (7 USC 8308). This Act provides the authority for the USDA APHIS VS to cooperate with states or political subdivisions thereof, domestic or international associations or organizations, Indian Tribes, and individuals, to improve livestock and to control or eradicate any communicable diseases of livestock. Furthermore, Federal Order: Bovine Tuberculosis: Requirements Applicable to Accredited-Free and Modified Accredited Advanced States or Zones issued April 15, 2010, set forth requirements and guidelines for bTB accreditation.

HDOA has the authority in the State of Hawai`i under Title 11, Chapter 142, Hawai`i Revised Statutes to regulate animal diseases and quarantine that includes:

Section 142-2, Rules. Provides HDOA the ability to make and amend administrative rules for the inspection, quarantine, disinfection, or destruction of animals and the premises and effects used in connection with the animals. Included therein may be rules governing the control and eradication of transmissible diseases of animals and the transportation of animals between islands and along highways.

Section 142-3 Department duties. Provides HDOA the charge, direction, and control of all matters relating to the inspection of animals and the prevention and eradication of contagious, infectious,

and communicable diseases among animals and of all matters relating to animal industry.

Section 142-6 Quarantine. Provides that HDOA may quarantine any animal known to be affected with, to have been exposed to, or to be susceptible to, any contagious, infectious, or communicable disease, and destroy the same, when in the opinion of the department, such measure is necessary to prevent the spread of the disease.

ARTICLE 4 - MUTUAL AGREEMENT

HDOA and USDA APHIS VS mutually agree to/understand that:

- A. Federal Order: Bovine Tuberculosis: Requirements Applicable to Accredited-Free and Modified Accredited Advanced States or Zones issued April 15, 2010 be the guiding document regarding this MOU, in addition to cattle, bison, and cervid rules and regulations of the National Tuberculosis Eradication Program, including VS Memos, VS Notices, pertinent parts of the Code of Federal Regulations; the Uniform Methods and Rules, January 1, 2005, including any future revisions; and the Cervidae Uniform Methods and Rules, January, 1999, including any future revisions.
- B. Status: The requirements and agreements of the MOU must be in place and the prevalence rates in cattle in compliance with requirements of the CFR to maintain status. If it is determined that the conditions of this MOU or any other applicable regulations are not being met after conducting a program review, USDA APHIS VS may withdraw Hawai'i's State status and reclassify the State of Hawai'i as split status for Moloka'i in accordance with the CFR and Moloka'i 's overall bTB herd prevalence.
- C. Conditions: Upon signature of this MOU, HDOA agrees to the conditions for accredited free status for bTB as defined in 9 CFR Part 77 and described within. Both parties acknowledge that: a signed MOU is required for maintenance of State status and that in the absence of a current MOU State accredited free status may be rescinded by the USDA APHIS VS, and that Hawai'i will retain its accredited free status for bTB and cattle that are not known to be infected with or exposed to tuberculosis may be moved interstate from Hawai'i without restriction for tuberculosis, providing compliance with the criteria of this MOU is maintained.

ARTICLE 5 – COOPERATOR RESPONSIBILITIES

Hawai'i Department of Agriculture (HDOA) is responsible for the following:

- A. Designate, in writing, an authorized representative who shall be responsible for collaboratively administering the activities conducted under this MOU.
- B. Require official electronic identification for any live cattle moved from premises on the Island of Moloka'i with the exception of any animals moved direct to slaughter on the Island of Moloka'i and have the ability to retrieve information concerning animal identification and animal movement within 48 hours.

C. Verify all cattle on the island of Moloka‘i except cattle enrolled in an approved BBH herd under section H 2, are double-tagged and replace lost/missing tags at the time of bTB testing or herd inventory visit with an official electronic identification tag and a secondary HDOA approved identification tag. All identification must be entered into SCS or other approved database within 60 days of placement by HDOA in cooperation with VS personnel, including updated tag information as applicable.

D. Maintain and enforce Quarantine Order #158, “Bovine Tuberculosis Quarantine. Island of Molokai,” restricting movement of live ungulates, except horses, to prevent spread of disease. Modification or lifting of the quarantine order may be performed by HDOA in concurrence with USDA APHIS VS.

E. Animal Movement:

1. All live, captive ungulates on the island of Moloka‘i are prohibited from moving from owner’s property unless an approved movement permit (APPENDIX) is obtained. HDOA will maintain and enforce the DC-8 movement permit system to request, approve, and track movement of live ungulates on Moloka`i.

2. Prior to the movement of cattle within Island of Moloka‘i:

- a. The herd of origin shall have completed a negative herd test for bTB of all animals four months of age or older and all non-natural additions of any age within the past twelve months, or
- b. The cattle for movement shall be tested negative for bTB within 30 days prior to movement.
- c. Cattle are exempt from testing requirements in parts a. and b. above when permitted direct to slaughter on Moloka`i or into terminal feedlot approved by HDOA in conjunction with APHIS.

3. Prior to the movement of cattle off Moloka`i:

- a. The herd of origin shall have completed a negative herd test for bTB of all animals four months of age or older and all non-natural additions of any age within the past twelve months, or
- b. The cattle for movement shall be tested negative for bTB within 30 days prior to movement.
- c. Permitted shipments of bTB exposed Moloka`i cattle direct to slaughter on O`ahu` s Hawaii Meats plant will be allowed under conditions detailed in the joint USDA-HDOA Standard Operating Procedure (SOP) No: AI_2022-03-10, or as amended.
- d. All non-exposed livestock movements to slaughter must be accompanied by an approved movement permit and moved directly to an HDOA-approved establishment for immediate slaughter.
- e. Additional restrictions and pre-movement bTB testing may be required for interstate movement of cattle leaving Moloka‘i at the discretion of the receiving state.

4. Prior to the movement of captive Axis deer on Moloka`i:

- a. All captive deer are required to test negative for bTB 30 days prior to movement.
 - b. Captive deer are exempt from pre-movement bTB testing if moved directly to a recognized slaughter establishment on Moloka`i.
5. HDOA will conduct unscheduled inspections at Young Brothers at the Port of Kaunakakai on Moloka`i for compliance with State requirements for interisland movements and this MOU.
- F. Quarantine and procedures for affected herds:
1. The State of Hawai`i will continue to issue quarantines for each affected herd identified, and conduct official bTB testing, removal or depopulation of animals as stipulated within individual herd management plans.
 2. HDOA will quarantine all premises that contain animals suspicious for the presence of *M. bovis* as outlined in the 2005 Uniform Methods and Rules until determined to be negative for bTB. On a case-by-case basis, HDOA and USDA APHIS VS may approve movement of animals off a quarantined premises where animal welfare or other concerns related to quarantined animals exist.
 3. All herds in which Comparative Cervical Tuberculin (CCT) Suspect or Reactor animals are identified shall be quarantined immediately. Exposed animals must remain on the premises where bTB detection is confirmed unless a State or Federal permit for movement has been obtained. Movement of animals for immediate slaughter must be shipped directly to a slaughtering establishment where approved State or Federal inspection is administered. Exposed animals must be identified by official eartags.
 4. Herd plans will be developed and implemented for all affected herds in concordance with APHIS. Compliance with and successful completion of the herd plan is necessary for removal of operation/herd quarantine.
 5. Sale of feeder calves from quarantined herds shall be restricted. Feeder calves under 12 months of age that are negative to a CFT test within 60 days may be permitted to move interstate to an approved feedlot provided the movement is otherwise compliant with procedures in Article 5E.
 6. When *M. bovis* infection has been confirmed in a herd, an epidemiologic investigation and tracing will be initiated. During the investigation, HDOA will administer the VS epidemiological questionnaire and complete tracing within 30 days of confirmation of infection in cooperation with VS.
 7. VS Cattle Health Center staff, HDOA and Hawaii VS will develop Test and Remove (T&R) herd management plans for affected herds based upon review of the epidemiologic investigation and the VS CEAH T&R model.
 8. All animals moved from a premises prior to being released from quarantine shall be shipped and accompanied by an approved movement permit either:

- a. Directly to slaughter as provided in Article 5E; or
- b. Directly to a bTB approved feedlot in another state providing;
 - i. the State Veterinarian of the receiving state approves the movement; and
 - ii. any pre-movement testing or other shipping requirements of the receiving state are met.

G. HDOA will include information of activities in the bTB program in the annual and semiannual bTB reports in electronic format as directed by USDA APHIS VS Ruminant Health Center. Metrics of activities to be documented:

1. Number of exposed;
2. Number livestock and wildlife slaughtered under FSIS inspection;
3. Number necropsied and results of necropsy for all species;
4. Number tested with Tuberculin testing;
5. Number shipped out of state;
6. Inventory of cattle herds and number of cattle on Moloka'i;
7. Results for all Wildlife tested at NVSL;
8. Investigations opened and closed;
9. Traces initiated, completed;
10. Status of all active wildlife mitigation strategies; and
11. Number of outreach activities with public engagement metrics.

H. HDOA will conduct surveillance for bTB in cattle on Moloka'i as follows:

1. Annual whole herd testing of all herds except Backyard Beef Herds. Herd tests should include animals four months of age and older as well as all non-natural additions of any age,
2. Conference of the Backyard Beef Herd (BBH) designation is approved by the Chairperson, Board of Agriculture. Backyard Beef Herds must:
 - a.) Be isolated to not contact other cattle,
 - b.) not be situated adjacent to other non-BBH cattle,
 - c.) not be in direct, nose-to-nose contact with non-BBH cattle at any time,
 - d.) undergo annual inventory inspection to verify the herd is comprised of six or fewer head,
 - e.) not be comprised of intact male and female cattle, breeding of cattle is prohibited,
 - f.) not allow cattle to be moved from the BBH to any other premises unless approved by HDOA, and
 - g.) animals within the BBH are identified as described in SOP No: 502-2023_ADC_bTB BBH.
 - h.) HDOA must also be notified within 7 days if animals die, or prior to slaughter if not inspected by FSIS personnel (custom or home slaughter).

Failure to comply with these requirements could result in the revocation of the BBH designation and could result in penalties.

I. Testing high-risk herds:

1. In a newly assembled herd on premises where a tuberculosis-affected herd has been depopulated, two negative annual herd tests shall be applied to all cattle and other livestock. The first test must be applied approximately six months after assembly of the new herd. The exclusion of any species from these herd test requirements or test requirement waiver must be approved by a designated epidemiologist.
 2. Animals previously sold from a known affected herd are considered Exposed. If the exposed animal(s) are not depopulated, they shall be tested as determined by HDOA in conjunction with APHIS.
 3. In herds where *M. bovis* infection has been confirmed but the herd has not been depopulated, testing shall be in accordance with requirements outlined in an individual herd plan. Reference Article 5, Item F.4.
- J. HDOA will collaborate with APHIS Wildlife Services (APHIS WS) and APHIS VS, university and agency-based researchers, and representatives of livestock producers to develop a means to assess the biosecurity of herds in the highest risk on Moloka`i. This effort is designed to identify and support long-term cattle raising practices that may decrease risk of bTB infecting herds from surrounding wildlife.
- K. HDOA will collaborate with Hawai`i Department of Land and Natural Resources (DLNR) and USDA WS as necessary for the accurate determination of the prevalence of bTB in wildlife species on Moloka`i and evaluate the need for wildlife control activities on livestock premises to reduce bTB transmission risk.
- L. HDOA will evaluate effectiveness of deer exclusion fencing and other wildlife mitigation strategies in cooperation with VS and WS partners through the funded 2023 TB Initiative Project, proposal for a 2024 TB Initiative Project or other available funding.
- M. HDOA will complete herd inventory reconciliation for Backyard Beef Herds and any whole herd test performed on Moloka`i by regulatory or accredited veterinarians within 60 days of a whole herd test or annual inspection. Herd inventory reconciliation means comparing herd inventories between two dates, identifying animals that cannot be accounted for by current databases, contacting owners to gather any additional information, and assigning animals for investigation. Justification for herd reconciliations extending beyond 60 days from WHT or annual inspection will be summarized in the annual TB reports.

ARTICLE 6 – USDA APHIS VS RESPONSIBILITIES

USDA APHIS VS is responsible for the following:

- A. Designate, in writing, an authorized representative who shall be responsible for collaboratively administering the activities conducted under this MOU.
- B. Provide expertise in epidemiology, diagnostic support, risk assessment, and testing.
- C. Assist with maintaining slaughter surveillance at Federal slaughter establishments,

including assisting HDOA with obtaining data on cattle movement to and slaughter in other states.

- D. Manage indemnity and compensation for transportation and/or disposal payments as funding allows for diagnostic suspect (as applicable), reactor, exposed, or depopulation in the following:
 - 1. High-risk herds as described in Article 5, Item I.
 - 2. Cattle in herds undergoing whole herd surveillance testing, movement testing, or circle testing related to the finding of bTB in wildlife or cattle.
 - 3. Cattle that are positive to the caudal fold tuberculin test during the assessment and removal phase, and positive to the comparative cervical testing and/or gamma interferon testing during the verification phase of testing in herds undergoing a test and remove herd management plan.
 - 4. Susceptible livestock affected by bTB.
- E. Assist with payments for specimen shipping fees, laboratory analysis, data storage, and management support.
- F. The USDA APHIS VS will assume responsibility for timely appraisal and payment for animals indemnified with Federal funds.
- G. Assist HDOA with cattle movement monitoring and compliance investigations involving movement of cattle intrastate and interstate through the activities of USDA, APHIS Investigative and Enforcement Services (IES) officers.
- H. Engage USDA APHIS WS to assist with wildlife risk management, enhanced biosecurity verification and other support activities.
- I. Provide support for acquisition, system updates, and development of electronic identification, hardware and software in accordance with Animal Disease Traceability and USDA regulations.
- J. Provide data entry assistance necessary to monitor tuberculosis testing and animal movements and assist with fulfilling reporting requirements of this MOU.
- K. Review the progress of the bTB eradication activities covered under this MOU and reporting recommendations to HDOA.
- L. Support implementation of wildlife risk mitigation strategies including completing herd assessments and wildlife risk assessment with wildlife biosecurity recommendations.
- M. USDA APHIS VS will conduct annual reviews of the bTB eradication program on Moloka'i to determine compliance with this MOU and all other applicable regulations.

ARTICLE 7 – STATEMENT OF NO FINANCIAL OBLIGATION

Execution of this MOU does not constitute a financial obligation on the part of the USDA APHIS VS or HDOA. Each signatory party is to use and manage its own funds in carrying out the purpose of this MOU. Transfers of funds or items of value are not authorized under this MOU.

ARTICLE 8 – LIMITATIONS OF COMMITMENT

This MOU, and any continuation thereof, shall be contingent upon available funds appropriated by each party's funding source. The USDA receives its funds through appropriations from the Congress of the United States. It is understood and agreed that any monies allocated for purposes covered by this MOU shall be expended in accordance with its terms and in the manner prescribed by the fiscal regulations and/or administrative policies of the party making the funds available. If fiscal resources are to transfer, a separate agreement must be developed by the parties.

HDOA funds are subject to and contingent upon, available funding from the Hawai'i Legislature and Executive branch. Funds may be limited, discontinued, or eliminated if the Legislature fails to appropriate sufficient funds, or if an Executive Order, directive, or departmental decision limits, discontinues, or modifies the ability of the Cooperator to utilize appropriated funding.

ARTICLE 9 – CONGRESSIONAL RESTRICTION

Pursuant to 41 USC 6306, no member of or delegate to Congress shall be permitted to share any or part of this MOU or to any benefit to arise there from.

ARTICLE 10 – NON-DISCRIMINATION CLAUSE

The United States Department of Agriculture prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. Not all prohibited bases apply to all programs.

ARTICLE 11 – LIABILITIES

APHIS assumes no liability for any actions or activities conducted under this MOU except to the extent the recourse or remedies are provided by Congress under the Federal Tort Claims Act (28 USC 1346(b), 2401(b), 2671-2680).

ARTICLE 12 – LAWS, RULES, AND REGULATIONS

All activities will be conducted in accordance with applicable Federal statutes, rules, and regulations.

ARTICLE 13 - AMENDMENTS AND TERMINATION

This MOU may be amended at any time by mutual agreement of the parties in writing. This MOU may be terminated by either party upon 90 days written notice to the other party.

ARTICLE 14 – EFFECTIVE DATE AND DURATION

This MOU will become effective November 14, 2024, through November 13, 2025.

If additional bTB-affected cattle herds are detected on islands other than Moloka‘i, then an additional MOU will need to be established.

HAWAII DEPARTMENT OF AGRICULTURE



Sharon Hurd
Chairperson
Board of Agriculture

Nov 12, 2024

Date

**UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
VETERINARY SERVICES**

Dr. Don Herriott
Director, District 3, Field Operations
Veterinary Services

Date

APPENDIX

Definitions:

- a. Approved Movement Permit: A DC-8 “Permit to Ship” or VS 1-27 “Permit for Movement of Restricted Animals” issued by a State or Regulatory Veterinarian or designated appointee.
- b. Affected Herd: A herd of livestock in which there is strong and substantial evidence that *Mycobacterium bovis* exists. This evidence should include, but is not limited to, any of the following: histopathology, polymerase chain reaction (PCR) assay, bacterial isolation or detection, testing data, or epidemiologic evidence such as contact with known sources of infection.
- c. Backyard Beef Herd: Cattle herd of six or less head used for personal subsistence on a premises. Conference of the Backyard Beef Herd (BBH) designation is approved by the Chairperson, Board of Agriculture. Backyard Beef Herds must be isolated to not contact other cattle, not be situated adjacent to other non-BBH cattle, undergo annual inspection to verify the herd is comprised of 6 or fewer head, no breeding of cattle occurs, and no cattle are moved from the BBH to any other premises. All cattle in the BBH must have approved identification in place or be officially inventoried per HDOA SOP No: 502-2023_ADC_bTB BBH. All cattle must be slaughtered at an FSIS inspected facility or HDOA must be contacted to arrange inspection for all slaughter at custom or BBH premises.
- d. Cattle: includes all live bovine (genus *Bos*) animals, bovine-like animals (genus *Bison*) also referred to as American buffalo or bison, and any cross of these species unless otherwise specifically provided.
- e. Designated Epidemiologist. An epidemiologist who has demonstrated the knowledge and ability to perform the functions required for tuberculosis epidemiology and who has been selected for this position by the State animal health official (SAHO) and Area Veterinarian in Charge (AVIC) or other local APHIS leadership and APHIS tuberculosis program staff. Alternate standards proposed will be evaluated by APHIS on a case-by-case basis. The VS District Director and APHIS tuberculosis program staff must concur in the selection and appointment of the designated epidemiologist. Alternate standards proposed will be evaluated by APHIS on a case-by-case basis.
- f. Exposed (animal): Any livestock that have been exposed to bovine tuberculosis by reason of associating with other livestock in which *M. bovis* has been diagnosed.
- g. Live ungulates: For the purposes of this MOU, refers to all live, captive ungulates except for equids.
- h. Negative animal: Any cattle or bison that show no response to an official tuberculosis test; are classified negative on the bovine interferon gamma assay if conducted; or are classified negative for tuberculosis by a State or VS veterinarian based upon history, supplemental tests, examination of the carcass, and histopathological examination and bacteriological culture of selected tissues.