RESOLUTION NUMBER: 1 Combined with 13, 27 and 32 Approved

SOURCE: **COMMITTEE ON NATIONAL ANIMAL HEALTH LABORATORY NETWORK (NAHLN)**
COMMITTEE ON ANIMAL EMERGENCY MANAGEMENT
COMMITTEE ON CATTLE AND BISON
COMMITTEE ON FOREIGN AND EMERGING ANIMAL DISEASES

SUBJECT MATTER: **Foot-and-Mouth Disease Diagnostics – Serology Assay Deployment to National Animal Health Laboratory Network Laboratories**

BACKGROUND INFORMATION:

A group of stakeholders from the bovine germplasm industry, state and federal animal health officials and veterinary diagnostic laboratory representatives are collaborating to create guidance criteria to allow domestic movement of bovine germplasm and high genomic merit animals located in a regulatory control area during a foot-and-mouth disease (FMD) outbreak in the United States (US). The Bovine Germplasm Movement Plan is a guidance document being developed through funding provided by the United States Department of Agriculture (USDA) National Animal Disease Preparedness and Response Program (NADPRP). Maintaining safe domestic movement of germplasm and high genomic merit animals from their birth location into the genetic system is the focus of this guidance. This provides business continuity opportunities for the entire cattle industry and preservation of genetic material.

The bovine germplasm industry consists of semen production, oocyte harvest, and embryo production. Most of the new genetic stock in both dairy and beef industries is produced by artificial insemination (AI) and embryo transfer (ET). It is estimated that 70-75% of dairy cattle and 10% of beef cattle in the US are bred by artificial insemination (source: National Association of Animal Breeders (NAAB), Certified Semen Services (CSS)). Frozen semen and embryos are shipped to cattle operations in all 50 states (source: NAAB and the American Embryo Transfer Association).

Every year, millions of doses of bovine semen and nearly 0.5 million bovine embryos are transported in the US from their site of collection/creation to laboratories for quality control, further processing and then moved to livestock facilities for use in cattle. Movement from FMD control areas will require a movement permit and is based on risk. Serologic

surveillance of the donor bull or female on the day of semen, embryo or oocyte collection could provide a high degree of confidence that the animal was not infected 14 days previously. Test results, combined with active observational surveillance of the donor animals, can be useful for issuing movement permits for animal products that can be stored for 14 days (e.g., frozen semen and embryos).

Collecting and storing serum at the start of an FMD outbreak from bulls and donor females actively having semen/oocytes/embryos collected could be part of a business contingency plan for germplasm facilities. These banked serum samples would be available to test for permitting requirements, as needed. The cost of testing serum for business continuity will be the responsibility of the submitter (owner, business, etc.) not the state and federal agencies managing the response.

Some AI bull stations (studs) collect and retain serum samples for bulls with semen destined for international export. These serum samples are collected by or under the guidance of a USDA Category II Accredited Veterinarian approximately every 28 days when the bull semen is being collected. In some cases, the germplasm facilities archive or “bank” these serum samples for up to 3 years. Samples would be available in an outbreak for confirming the serology status of the bull and semen stored frozen and distributed beyond the point of origin. It is uncommon for serum samples to be retained for female donors.

Some veterinary diagnostic laboratories that test serum for semen export purposes archive/retain samples for a few weeks up to 6 months after submission. These serum samples could be an option for bulls that have had semen exported before the first diagnosis of FMD in the US and used to determine the status of that bull before domestic semen movement.

The USDA, Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS), National Veterinary Services Laboratory (NVSL), Foreign Animal Disease and Diagnostic Laboratory (FADDL) has a commercially available and validated antibody enzyme linked immunosorbent assay (ELISA) test for FMD that could be deployed to National Animal Health Laboratory Network (NAHLN) laboratories. Deployment of the assay will require an accompanying Standard Operating Procedure (SOP) and technicians at the NAHLN laboratories will need to pass a proficiency test (PT) before they are approved to perform the assay. Development of a PT panel and administration of the PT program will require time and resources from each NAHLN laboratory and USDA-APHIS-VS-NVSL-FADDL. In the face of an outbreak, this additional time burden could be a barrier to establishing this diagnostic assay.

There is a small cohort of NAHLN laboratories that conduct the majority of antibody ELISA testing on serum for domestic diseases as part of semen and embryo export protocols. Once exports cease due to an FMD outbreak, these high-volume serum testing NAHLN

labs should have the capacity to conduct outbreak serology testing. The majority of these labs have expressed interest in undergoing non-outbreak proficiency testing for FMD antibody testing using serum. As of October 2023, there is no FMD serologic testing approved for NAHLN laboratory use. A defined testing protocol and authorized laboratories (trained and passed proficiency testing) will allow swift deployment of the assay if an outbreak occurs. State animal health officials would need to support sample movement to one of the authorized laboratories at the beginning of the outbreak until more laboratories can be onboarded. Deployment of the assay and PT of personnel prior to disease emergence would allow NAHLN labs to incorporate this assay into their toolbox to support the industry and decision makers should an FMD outbreak occur. This assay would allow surveillance of bulls and female germplasm donors (semen, oocytes, embryos) in a control area for business continuity, contribute information to the animal health officials managing the response, and preserve genetic material.

This resolution does not include considerations for serologically testing vaccinated animals and the serum ELISA assay's ability to differentiate infected from vaccinated animals (DIVA). Emergency vaccination in an FMD outbreak with corresponding diagnostic testing is complex and outside the scope of this resolution.

RESOLUTION:

The United States Animal Health Association urges the United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services, National Veterinary Services Laboratory, Foreign Animal Disease Diagnostic Laboratory to deploy foot-and-mouth disease antibody enzyme-linked immunosorbent assay (ELISA) tests to National Animal Health Laboratory Network (NAHLN) laboratories. This would require, at a minimum, development of a NAHLN Standard Operating Procedure, a training and proficiency testing program, and a procurement and distribution plan of a commercially available and validated ELISA test. The program should prioritize NAHLN laboratories that currently conduct high-volume serum testing. Policy describing test result interpretation and reporting protocols should be developed under the guidance of the National Preparedness and Incident Coordination Center. Testing frequency guidance should be developed with input from the Center for Epidemiology and Animal Health Surveillance Design and Analysis Group.

USAHA urges Congress to appropriate additional funding for NAHLN to support this work.

RESOLUTION NUMBER: 2 Combined with 14, 28 and 33 Approved as Amended

SOURCE: **COMMITTEE ON NATIONAL ANIMAL HEALTH LABORATORY NETWORK (NAHLN)**
COMMITTEE ON ANIMAL EMERGENCY MANAGEMENT
COMMITTEE ON DISEASES OF CATTLE AND BISON
COMMITTEE ON FOREIGN AND EMERGING ANIMAL DISEASES

SUBJECT MATTER: **Foot-and-Mouth Disease Diagnostics – Oral Swab Deviation for a New Population of Animals**

BACKGROUND INFORMATION:

A stakeholder group comprising bovine germplasm industry members, state and federal animal health officials and veterinary diagnostic laboratory representatives are collaborating to create guidance criteria to allow domestic movement of bovine germplasm and high genomic merit animals located in a regulatory control area during a foot-and-mouth disease (FMD) outbreak in the United States (US). The Bovine Germplasm Movement Plan is a guidance document being developed utilizing funding provided by the United States Department of Agriculture (USDA) National Animal Disease Preparedness and Response Program. Maintaining safe domestic movement of germplasm and high genomic merit animals from their birth location into the genetic system is the focus of this guidance. This provides business continuity opportunities for the cattle industry and preservation of genetic material.

Heifer and bull calves from embryos have their deoxyribonucleic acid (DNA) tested. Young heifers and bulls (from 35 to 120 days of age) that meet or exceed genomic testing expectations are frequently moved intra- and interstate from their origin herds to semen production centers or donor facilities where they are raised. An estimated 30,000 implanted embryos will result in approximately 10,000 calves from which nearly 220 bulls enter semen production for artificial insemination.

Young female calves with high genomic merit may be moved once or twice from their origin recipient herds or private cattle operations to the oocyte collection facility. Adult female donors could be moved to satellite centers, usually within 2–3 hours of their origin, on the day of oocyte collection and return home the same day. They could also remain at centers and be collected a few times every 14 days. Female donors on a long-term in vitro

fertilization program will usually move to donor facilities and stay for several months before returning to their herd of origin.

Bulls used for semen collection may enter production centers as young calves (from dairy or embryo recipient herds) or as older bulls purchased or leased from private seedstock producers. Most bulls are examined, tested for endemic diseases and moved to isolation facilities for further testing before moving into the resident herds at production centers. Semen collected from these bulls is sold internationally and domestically.

Movement of these high genomic merit animals from FMD control areas will require a movement permits and is based on risk. Diagnostic testing coupled with active observational surveillance (AOS) records could increase the confidence of state animal health officials reviewing business continuity permit requests that the target population movement within or out of an FMD control area will not spread FMD virus. The target population would be high genomic merit animals (bulls, heifers, cows) that have no evidence of FMD infection based on AOS data for at least 14 days needing to move from their origin premises in FMD control areas to enter semen/embryo systems (maintaining genetic supply chain) within or outside of control areas. Additionally, source herds requesting movement permits should be designated at-risk or monitored premises and would need to meet state generate and Secure Food Supply Plan criteria:

- Traceability information is available (Premises Identification Number, Global Positioning System coordinates, and information on type and number of animals moved)
- Biosecurity measures listed in the biosecurity checklist are in place and acceptable to responsible regulatory officials
- Trace back/forward information is acceptable; premises is not infected, suspect or contact
- Destination premises and states are willing to accept the cattle
- No evidence of infection based on disease monitoring (surveillance)

Additionally, destination premises should have the ability to quarantine animals upon arrival and conduct AOS for 14 days

The oral swab real-time reverse transcriptase polymerase chain reaction (rRT-PCR) test is a validated sample type for use in animals with clinical signs of FMD and a validated test with known specificity (99%) and sensitivity (94%) for use by the USDA, Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS), National Veterinary Services Laboratory (NVSL), Foreign Animal Disease Diagnostic Laboratory. The National Animal Health Laboratory Network (NAHLN) labs are proficiency tested for the rRT-PCR FMD assay but are not approved to test oral swabs on non-clinical animals. This test has not been validated for use in animals with no clinical signs of FMD - new target population. Therefore, a NAHLN laboratory would need to request a deviation from the NAHLN program office for Emergency Use Approval (EUA) of this test on non-clinical animals.

The process for NAHLN EUA involves the NAHLN program office collaborating with the USDA-APHIS-VS-NVSL Director, the National Preparedness and Incident Coordination Center, state animal health officials, the USDA-APHIS-VS Area Veterinarian-in-Charge and USDA-APHIS Emergency Coordinator for that/those state(s) to come up with a plan. The plan will need to address the logistics for sample collection, timing of collection, number of animals to be tested, frequency of testing (single or serial testing) and result interpretation. This process usually happens at the time of an outbreak when the need arises. It can be established pre-outbreak if the need has been identified. That time is now – to meet the business continuity opportunities for the movement of high genomic merit animals into the germplasm industry, contributing to cattle reproduction and preservation of genetic material.

There are gaps in scientific data to determine the sample collection and testing logistics. For instance, oral swab rRT-PCR testing can be used sooner than a serology assay to detect FMD infection but may still produce false negative results during an early stage of pre-clinical infection. The window of the early infection stage when the FMD virus will be undetectable by the rRT-PCR test is unknown.

During an outbreak, time and resources will be limited for the stakeholders described above to request and secure the deviation. Being able to define this process pre-outbreak benefits all parties so sample collection and testing can be promptly implemented during an FMD outbreak.

The number of animals tested would only be a portion of the high genomic population born each year and female ovum donors (assuming the entire US is not a control area). Average yearly data from 4 commercial semen production centers across the 48 contiguous states are approximately 2,350 bull calves, 3,800 heifer calves, and 400-500 female ovum donors. The cost of testing oral swabs for business continuity will be the responsibility of the submitter (owner, business, etc.) not the state and federal agencies managing the response.

RESOLUTION:

The United States Animal Health Association urges the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service, National Veterinary Services Laboratory, Foreign Animal Disease Diagnostic Laboratory to determine the sensitivity of an oral swab real-time reverse transcriptase polymerase chain reaction test for foot-and-mouth disease. Additionally, the testing frequency and interval should be developed through input from the Center for Epidemiology and Animal Health Surveillance Design and Analysis Group.

A policy that describes test result interpretation and reporting protocols should also be developed under the guidance of the National Preparedness and Incident Coordination Center.

Lastly, based on the data collected, the National Animal Health Laboratory Network (NAHLN) program office should define guidelines for a pre-outbreak deviation process that can be initiated by a NAHLN laboratory interested in requesting this Emergency Use Approval.

The USDA should prioritize defining guidelines for a pre-outbreak oral swab deviation process and test evaluation on a new population of animals, policy development for results interpretation and reporting protocols and testing frequency. USAHA urges Congress to appropriate additional funding for NAHLN to support this work.

RESOLUTION NUMBER: 3 **Approved as Amended**

SOURCE: **COMMITTEE ON ANIMAL HEALTH SURVEILLANCE AND INFORMATION SYSTEMS**

SUBJECT MATTER: **Adoption of Data Standards for Exchange of Emergency Permitted Movement Data**

BACKGROUND INFORMATION:

The information contained in an emergency movement permit is of utmost importance for animal disease incident response and animal disease traceability. Permits are a critical tool for the management of low-risk movements during a disease response to ensure business continuity during high-consequence disease outbreaks. Data from these permit documents could be seamlessly integrated into the daily operations of animal health and traceability database systems, thereby adding value and reducing the need for redundant data entry. A standardized data exchange format would enable developers of both types of systems to support a single electronic exchange format, eliminating the need for customization for each potential data exchange partner.

The Emergency Permit Data Standards Working Group was established under the Information Technology Standards Subcommittee with the goal to develop or adapt existing standards for information interchange by systems and services. The charge was to define the minimum information standards associated with animal and commodity movements within and between states during a disease emergency where a permit is needed. The Emergency Permit Data Standards Working Group included federal, state, academic, and industry representatives. The team leveraged the work and processes established by the Electronic Certificate of Veterinary Inspection Data Standards Working Group to develop a standard that reduces the necessity for duplicate data entry and customized extract/transform/load programs for different animal health database systems. As a result, the working group created a common data format for exchanging information contained in electronic emergency movement permits among dissimilar information systems, setting a standard for the electronic exchange of minimal information related to the movement of animals and commodities across state lines.

RESOLUTION:

The United States Animal Health Association requests the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service, Veterinary Services to adopt the minimal data standards developed by the Emergency Permit Data Standards Working Group and to implement the standard in USDA's Emergency Management Response System for messaging permitted movement data.

RESOLUTION NUMBER: 6 **Approved**

SOURCE: **COMMITTEE ON FARMED CERVIDAE**

SUBJECT MATTER: **Evaluate the Tuberculosis Classifications of Each State with an Active Farmed Cervid Industry**

BACKGROUND INFORMATION:

In 2001, all states were assigned modified accredited status for cervids under the Bovine Tuberculosis Eradication Program due to inadequate industry surveillance, lack of sensitive diagnostics and unknown disease prevalence within the farmed cervid industry.

Since 2001, the testing interval of cervids for tuberculosis (TB) accreditation was increased, which encouraged producer participation, and a serological assay was developed to determine the presence of antibodies to bovine TB, the Dual Path Platform (DPP) test was approved by the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS). Initially, there was an increase in surveillance, but in recent years, cervid herds have slowly dropped out of the TB program. Lack of interstate markets due to chronic wasting disease (CWD) and testing fatigue are the two reasons most often identified by cervid owners for leaving the program.

Since 2009, the TB prevalence in almost every state has dropped to zero percent. A move from modified accredited to modified accredited advanced for cervid herds would provide opportunity for more herds to participate in TB movement testing and increase the level of testing/surveillance from those cervid herds that have left the bovine TB eradication program.

While the level of traditional slaughter surveillance at federal or state inspected slaughter plants in farmed cervids is low, significant numbers of cervids are examined for evidence of TB through the CWD surveillance program. Visual examination of retropharyngeal lymph nodes submitted for CWD certification as part of the cervid TB program should be explored.

RESOLUTION:

The United States Animal Health Association (USAHA) urges the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) to evaluate Title 9 Code of Federal Regulations (CFR) Part 77 -

Subpart C—Captive Cervids (77.24 and 77.26) and assess each state's cervid tuberculosis (TB) status.

Furthermore, USAHA urges USDA-APHIS-VS to explore the potential for including the examination of retropharyngeal lymph nodes and other cranial lymph nodes for TB surveillance in cervids and clarify, prior to the 2024 USAHA meeting, the requirements for states to advance within the TB program.

2023 Resolution
127th Annual Meeting
Oct. 12-18, 2023
National Harbor, MD

RESOLUTION NUMBER: 7 Combined with 24 **Approved**

SOURCE: **COMMITTEE ON POULTRY AND OTHER AVIAN SPECIES**
COMMITTEE ON GLOBAL ANIMAL HEALTH AND TRADE

SUBJECT MATTER: **United States Compartmentalization Program Recognition – Final Response to Resolution 4 Combined With Resolution 29 From 2022 United State Animal Health Association Annual Meeting**

BACKGROUND INFORMATION:

During the 2022 annual meeting, the United States Animal Health Association (USAHA) adopted Resolution 4 requesting that the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) engage with foreign trading partners to seek their recognition of the poultry primary breeding compartments under the USDA National Poultry Improvement Plan (NPIP). The Committee on Global Animal Health and Trade concluded that the final response from USDA-APHIS-VS has been satisfactory.

From the adoption of the compartmentalization program by the USDA NPIP in 2014 (and the first certification of a compartment in the United States (US) in 2017) to date, only Indonesia has agreed to recognize this program, while Hong Kong only approves transshipments but not importation. No other country thus far recognizes the USDA NPIP program. In contrast, the United Kingdom has achieved greater recognition of their similar compartmentalization program by several of their trading partners.

RESOLUTION:

The United States Animal Health Association (USAHA) urges the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) to prioritize efforts to seek recognition of poultry primary breeding compartments under the United States Department of Agriculture National Poultry Improvement Plan with the following countries as priorities based on feedback from the Association of Poultry Primary Breeder Veterinarians and are critical to the global supply of genetic stock of meat- and egg-type chickens: Brazil, United Kingdom, Australia, Mexico, New Zealand, the Netherlands, Canada and Argentina.

USAHA also requests USDA-APHIS-VS to update the Global Animal Health and Trade, and the Poultry and Other Avian Species committees on a quarterly basis to seek input from these committees to help and support trade negotiating efforts by USDA-APHIS-VS.

RESOLUTION NUMBER: 8 **Approved as Amended**

SOURCE: **COMMITTEE ON SWINE**

SUBJECT MATTER: **Authorization of Indemnity for Depopulation During a Foreign Animal Disease Outbreak that Involves African Swine Fever**

BACKGROUND INFORMATION:

In 2022, the United States Animal Health Association (USAHA) passed Resolution 22. The request was for adoption of the following policy regarding indemnification prior to an outbreak:

> *During an African swine fever (ASF) outbreak, the USDA-APHIS-VS authorization for indemnity to depopulate the first detected case within a state or territory will require confirmation by the USDA-APHIS-VS National Veterinary Services Laboratory (NVSL). The USDA-APHIS-VS authorization for indemnity to depopulate any subsequent cases in a state or territory will not need to be confirmed by USDA-APHIS-VS-NVSL but will require: 1) ASF non-negative or presumptive positive result at an approved National Animal Health Laboratory Network laboratory, and 2) determination of clinical signs compatible for ASF on the affected premises. Detected cases would include feral and domestic swine.*

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (AHPIS) Veterinary Services (VS) responded with:

> *The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) recognizes the concerns of the United States Animal Health Association (USAHA) and appreciates the opportunity to respond.*
>
> *APHIS fully appreciates that policies related to authorization for indemnity in an ASF outbreak are of critical interest to the USAHA Swine Committee and stakeholders. The ASF virus is transmitted to swine only through close contact (not aerosol transmission) and is not zoonotic. Therefore, APHIS and State Animal Health Officials will focus on initial quarantine, site biosecurity, and aggressive contact tracing as the primary measures to contain the outbreak. The authorization for indemnity and subsequent swine depopulation activities will occur after those initial steps.*
>
> *The primary driver of indemnity policies will be the availability of sufficient funds through the duration of such an outbreak. Additional considerations include the regulatory requirement for confirmation, degree of confidence in any National Animal Health Laboratory Network (NAHLN) non-negative ASF diagnostic test result, and application of*

the APHIS Case Definition for ASF, which provides guidance for evaluating diagnostic test results and swine clinical signs to assign a regulatory status of suspect case, presumptive positive case, or confirmed positive case. Finally, indemnity authorization depends upon the submission of an indemnity request – including all required recordkeeping documents (e.g. mortality sheets, herd inventory logs, etc.) for appraisal.

APHIS understands depopulation and disposal of swine on any farm location is going to be difficult to accomplish, and proper planning and resources will be needed to ensure health and safety of the owner, grower, and responders, and animal welfare. APHIS supports additional scenario discussions, exercises and "ASF Playbook" development to better prepare stakeholder in the event of an incursion.

USAHA appreciates this response. Biocontainment, contact tracing and preventing further spread of ASF are critical in the initial stages of an ASF outbreak.

Indemnity and depopulation of infected sites are just as critical in biocontainment and in preventing the additional spread of ASF in the initial stages of an outbreak.

Testing protocols are another critical element to be identified ahead of an outbreak. Understanding testing as well as confidence in the NAHLN is extremely important.

Recognition and understanding of the processes for indemnity, depopulation and testing ahead of the outbreak are critical to encourage producers to report and to allow for a swift approach to the first infected sites. There is recognition that the case definition may not be as clear as a positive polymerase chain reaction test and clinical signs.

RESOLUTION:

The United States Animal Health Association (USAHA) requests that the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) clarify the indemnification policy prior to an outbreak.

USAHA encourages USDA-APHIS-VS to address the following in the policy:

1) USDA's authority to authorize indemnity based on a National Animal Health Laboratory Network (NAHLN) laboratory sample that meets the USDA case definition for a non-negative for African swine fever (ASF).
2) Determine the case definition for an ASF-infected premises and the requirements to authorize indemnity (confirmed vs. presumptive). Risk analysis should be considered.
3) The first ASF detection in a state must be confirmed by USDA-APHIS-VS National Veterinary Services Laboratory and subsequent detections may be authorized by a NAHLN non-negative that meets the USDA case definition for confirmation.
4) Provide specific eligibility procedures for producer indemnity.

RESOLUTION NUMBER: 10 **Approved**

SOURCE: **COMMITTEE ON SWINE**

SUBJECT MATTER: **Policy Regarding Restocking Requirements and Eligibility for Indemnity of Premises in a Control Area During an African Swine Fever Outbreak**

BACKGROUND INFORMATION:

In 2022, the United States Animal Health Association (USAHA) passed Resolution 23. The request was that the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service, Veterinary Services define African swine fever (ASF) response policy regarding restocking of premises in control zones, specifically the infected and buffer zones, and for any control areas established by the detection of ASF in feral pigs (which will have extended control area times) and determine prior to an ASF outbreak what policies will be applied.

The United States Department of Agriculture (USDA) responded with:

> *The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) recognizes the concerns of the United States Animal Health Association (USAHA) and appreciates the opportunity to respond.*
>
> *APHIS anticipates several areas of focus for continued discussion around ASF Control Areas. First, any Control Area established by a feral pig only ASF detection will likely be in existence for an extended length of time, due to the time it will take for wildlife biologists to perform swine surveillance, trapping, and depopulation in the Control Area (and Surveillance Zone around the Control Area). Domestic swine premises located in such a Control Area will have variable risk for ASF infection depending upon the density of feral pigs, and the domestic swine production type (backyard versus indoors swine premises).*
>
> *Second, Control Areas established by a domestic pig ASF detection are at risk of transmission by direct contact with the virus. Without any direct experience with an ASF outbreak in the United States, the risk of disease transmission within the geographical Control Area is unknown. Primary measures to contain an outbreak will focus on initial quarantine, site biosecurity, and vigorous contact tracing, because the ASF virus is transmitted to swine only through close contact (not aerosol transmission).*

APHIS, USAHA Swine Committee, and stakeholders will continue to further evaluate scenarios and biosecurity requirements for restocking and eligibility for indemnity of premises in a Control Area.

USAHA greatly appreciates this response. Continued discussions are vital to foreign animal disease preparedness and tremendous progress has been made in this area. The discussions and identification of draft policies ahead of an outbreak are critical as time is precious during an outbreak.

Feral swine create additional factors to resolve in an ASF response and will affect regions of the United States differently. Feral swine factors that affect risk analysis on restocking decisions in a control area include, and are not limited to, the type of facilities in an immediate geographical area, removal of dead stock, cross traffic, density of feral swine and domestic swine in the control area, feral swine mitigation efforts by facilities within a control area, etc. Preparing a biosecurity audit may also be beneficial ahead of an outbreak.

RESOLUTION:

The United States Animal Health Association (USAHA) requests the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) reconsider the request and define the African swine fever (ASF) response policy regarding restocking of premises in control areas, specifically the infected and buffer zones and for any control areas established by the detection of ASF in feral pigs (which will have extended control area times) so policies to be applied are known prior to an ASF outbreak.

To help define policy regarding restocking of premises in control areas, including feral swine areas, USAHA recommends the USDA-APHIS-VS sponsor risk assessment projects on the potential spread of ASF from feral swine to domestic swine facilities in an immediate geographic area through cooperative agreements and National Animal Disease Preparedness and Response Program grant funding. This allows academia, producers, industry, and state and federal officials to work together defining risk factors that would affect the restocking decision-making process in a control area and to develop mitigation that would allow restocking to occur.

Data generated by these projects would be reviewed by the USAHA Committee on Swine for incorporation into response policies and can be used to create tabletop exercises with all stakeholders.

RESOLUTION NUMBER: 11 Combined with 25 and 30 Approved

SOURCE: **COMMITTEE ON ANIMAL EMERGENCY MANAGEMENT**
COMMITTEE ON CATTLE AND BISON
COMMITTEE ON FOREIGN AND EMERGING DISEASES

SUBJECT MATTER: **Foot-and-Mouth Disease National Movement Standstill Exemptions: Bovine Germplasm**

BACKGROUND INFORMATION:

A group of stakeholders from the bovine germplasm industry, state and federal animal health officials, and veterinary diagnostic laboratory representatives are collaborating to create guidance criteria to allow domestic movement of bovine germplasm and high genomic merit animals located in a regulatory control area during a foot-and-mouth disease (FMD) outbreak in the United States (US). The Bovine Germplasm Movement Plan is a guidance document being developed through funding provided by the United States Department of Agriculture (USDA) National Animal Disease Preparedness and Response Program. Maintaining safe domestic movement of germplasm and high genomic merit animals from their birth location into the genetic system is the focus of this guidance. This provides business continuity opportunities for the entire cattle industry and preservation of genetic material.

The bovine germplasm industry consists of semen production, oocyte harvest, and embryo production. Most of the new genetic stock in both dairy and beef industries is produced by artificial insemination and embryo transfer. It is estimated that 70-75% of dairy cattle and 10% of beef cattle in the US are bred by artificial insemination (source: National Association of Animal Breeders (NAAB), Certified Semen Services. Frozen semen and embryos are shipped to cattle operations in all 50 states (source: NAAB and the American Embryo Transfer Association).

Every year, millions of doses of bovine semen and nearly 0.5 million bovine embryos are transported in the US from their site of collection/creation to laboratories for quality control and further processing and moved to livestock facilities for use in cattle. There are only 3 of the 48 contiguous US states (Georgia, Montana, South Dakota) with interstate movement requirements for semen and embryos, as of October 2023. The movement of germplasm to non-livestock facilities during an FMD outbreak is the focus of this resolution. Specific examples include:

- Oocytes collected from live female donors and shipped overnight to a laboratory without livestock.
- Semen collected from bulls shipped frozen to laboratory or storage facility without livestock.

- Embryos shipped frozen to laboratory or storage facility without livestock.

The USDA FMD Response Plan October 2020 draft provides guidance on a movement standstill under Section 4.10.1. Specifically, "A national (or regional) standstill includes stopping the sending and receiving of all live susceptible animals as well as semen and embryos from susceptible animals."

Further, it describes that "the USDA will provide clear concise policy guidance on the implementation and provisions of, made easily accessible to all stakeholders. Specifications of issuance will at least be defined for: …

4. a specific list of what items are restricted from movement (e.g., live swine and germplasm); and"

The risk mitigation step in the national movement standstill is to prevent livestock exposure to FMD virus through movements. Any germplasm that is moved during the standstill to storage, quality control laboratories, and other locations that do not house livestock should not pose a direct exposure risk. Germplasm storage tanks leaving a livestock premises (rather than a storage facility or laboratory) during the standstill must have their exterior cleaned and disinfected with a product labeled effective against FMD virus (https://www.aphis.usda.gov/animal_health/emergency_management/downloads/fmd-virus-disinfectants.pdf). Germplasm facilities designated as Infected, Suspect, or Contact Premises[1] during the standstill are subject to the quarantine orders (movement may not be allowed).

Clarifying this in the national movement standstill guidance in the USDA FMD Response Plan and/or policy guidance would provide business continuity opportunities for bovine germplasm facilities[2] that are not designated as Infected, Suspect, or Contact Premises; preserve genetic material; and lessen the burden to states with germplasm facilities that will inquire about movement options during an outbreak without increasing the risk of spreading FMD virus to livestock.

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[1] USDA Foreign Animal Disease Preparedness and Response Plan (FAD PReP) Foot-and-Mouth Disease Response Plan: The Red Book, October 2020 available at: www.aphis.usda.gov/animal_health/emergency_management/downloads/fmd_responseplan.pdf defines the following: Infected Premises (IP): Premises where a presumptive positive case or confirmed positive case exists based on laboratory results, compatible clinical signs, FMD case definition, and international standards. Contact Premises (CP): Premises with susceptible animals that may have been exposed to FMD, either directly or indirectly, including but not limited to exposure to animals, animal products, fomites, or people from IP. Suspect Premises (SP): Premises under investigation due to the presence of susceptible animals reported to have clinical signs compatible with FMD. This is intended to be a short-term premises designation.

[2] Germplasm facilities are defined as those housing male or female donor animals that need to move one or more live animal(s), semen, or embryo(s) into or out of their facility. This includes semen production centers, embryo production centers, satellite collection centers, veterinary clinics, breeding facilities, and other livestock operations that are involved in the creation of bovine germplasm.

After the standstill lifts, germplasm movements out of, within, or into a Control Area will require a movement permit under the 2020 USDA FMD Response Plan guidance. If germplasm is allowed to be moved to non-livestock locations during the standstill, no movement permit should be required after the standstill lifts as long as the origin is not designated as an Infected, Suspect, or Contact Premises, and records are kept of collection dates and movements from origin to destination for traceability. Separating/segregating germplasm at its destination would be in the business' best interest for germplasm collected/created after an outbreak in the event the donor is incubating FMD.

Lastly, it should be noted that USDA follows the World Organization for Animal Health (WOAH) Terrestrial Animal Health Code (TAHC) guidance which defines the FMD incubation period as 14 days. Two times the incubation period (28 days) is recommended for traceability, movement restrictions, and surveillance testing criteria.

Frozen bovine semen, *in vivo*-derived and *in vitro*-produced bovine embryos that were collected/created more than 28 days prior to the first US FMD diagnosis are a negligible risk for spreading FMD and should not be part of the national movement standstill. They may be stored frozen in laboratories without livestock and privately held tanks with and without livestock throughout the US.

RESOLUTION:

The United States Animal Health Association urges the United States Department of Agriculture to exempt the following bovine germplasm products from a national movement standstill issued due to a foot-and-mouth disease (FMD) diagnosis in the United States (US):

- Frozen bovine semen and frozen *in vivo*-derived and *in vitro*-produced bovine embryos collected/created more than 28 days prior to the first US FMD diagnosis as long as there are records to document the collection date and the origin is not an Infected, Suspect or Contact Premises.
- Semen, embryos, and oocytes collected from live donor animals during the standstill can move to a laboratory or storage facility without livestock as long as the movement is recorded and the origin is not an Infected, Suspect or Contact Premises.

Prior to leaving livestock facilities, semen and embryo storage tanks must have their exterior cleaned and disinfected with an Environmental Protection Agency-registered product labeled effective against FMD virus.

Movements to livestock facilities of frozen bovine semen and *in vitro*-produced bovine embryos collected/created less than 28 days prior to the first US FMD diagnosis will be subject to the movement restrictions determined by responsible regulatory officials based on the unique characteristics of the outbreak.

RESOLUTION NUMBER: 12 Combined with 26 and 31 Approved

SOURCE: **COMMITTEE ON ANIMAL EMERGENCY MANAGEMENT**
COMMITTEE ON CATTLE AND BISON
COMMITTEE ON FOREIGN AND EMERGING DISEASES

SUBJECT MATTER: **Movements of *in vivo*-derived Bovine Embryos in a Foot-and-Mouth Disease Outbreak**

BACKGROUND INFORMATION:

A group of stakeholders from the bovine germplasm industry, state and federal animal health officials and veterinary diagnostic laboratory representatives are collaborating to create guidance criteria to allow domestic movement of bovine germplasm and high genomic merit animals located in a regulatory control area during a foot-and-mouth disease (FMD) outbreak in the United States. The Bovine Germplasm Movement Plan is a guidance document being developed through funding provided by the United States Department of Agriculture (USDA) National Animal Disease Preparedness and Response Program (NADPRP). Maintaining safe domestic movement of bovine germplasm and high genomic merit animals from their birth location into the genetic system is the focus of this guidance. This provides business continuity opportunities for the entire cattle industry and preservation of genetic material.

The International Embryo Transfer Society (IETS) considers the risk of FMD virus transmission in *in vivo*-derived cattle (*Bos indicus and Bos taurus)* embryos to be negligible if properly handled between collection and transfer, according to the IETS Manual Chapter 6. Recommendations for the sanitary handling of *in vivo*-derived embryos. (Source: Appendix B. Conclusions of the Research Subcommittee of the IETS Health and Safety Advisory Committee, 4th Edition Manual 2018). FMD virus is loosely attached to the zona pellucida of *in vivo* derived embryos and is removed by the recommended washing steps by the IETS. (Source: Escobar CJ. Embryo transfer, a potential risk in disease transmission. MOJ Anat & Physiol. 2018;5(4):259–262. DOI: 10.15406/mojap.2018.05.00205 available at: https://medcraveonline.com/MOJAP/embryo-transfer-a-potential-risk-in-disease-transmission.html)

A quantitative risk assessment was published in 1997 by Sutmoller and Wrathall that evaluated the risk of FMD transmission due to *in vivo* derived embryo transfer in cattle using data from a country where the annual FMD incidence was 1/1000 herds. Several pathways were considered in their model including:

1. At least one infected donor animal
2. Failure to detect disease in donor herd through animal surveillance or embryo collection team
3. Contamination of embryos in genital tract of infected donor
4. Failure to remove contamination during processing (which align with the IETS handling protocols)
5. Failure to observe disease in donor herds while embryos are stored frozen
6. Failure of diagnostic tests to detect FMD in collection fluids or other samples

Their conclusion was that using the risk reduction measures, the probability that one or more *in vivo* derived embryos out of 300 is contaminated with FMD virus is less than 1 in 100 billion. The authors state that the extremely low risk is mainly due to how easily FMD is recognized in cattle. (Source: Sutmoller P, Wrathall AE. A quantitative assessment of risk of transmission of foot-and-mouth disease, bluetongue, and vesicular stomatitis by embryo transfer in cattle; *Preventive Veterinary Medicine*, 32 (1997): 111-132.)

The IETS embryo handling methods are the internationally accepted standard and followed in the United States (US) and mitigate two of the pathways above. The US does not test embryo collection fluids for FMD; there is no validated test nor is it an approved sample type. However, active observational surveillance (as described in the USDA FMD Response Plan, Secure Beef Supply and Secure Milk Supply Plans) would mitigate three of the pathways above.

The World Organization for Animal Health (WOAH), Terrestrial Animal Health Code (TAHC) Chapter 4.8 provides guidance for collection and processing of *in vivo* derived embryos from livestock and equids (updated 2015) for international movement: https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/?id=169&L=1&htmfile=chapitre_coll_embryo_equid.htm. WOAH TAHC Chapter 4.10 provides guidance for collection and processing of micromanipulated oocytes or embryos from livestock and horses (updated 2009) for international export: https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/?id=169&L=1&htmfile=chapitre_coll_embryo_micro.htm Germplasm companies involved in export have protocols in place to meet these standards.

The WOAH TAHC Chapter 8.8 Infection with FMD provides guidance on embryo importation based on FMD status of the country/zone. https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/index.php?id=169&L=1&htmfile=chapitre_fmd.htm.

WOAH TAHC Article 8.8.17: Recommendations for the importation of *in vivo* derived embryos of cattle

> *"Irrespective of the FMD status of the exporting country, zone or compartment, Veterinary Authorities should authorise without restriction on account of FMD the*

import or transit through their territory of in vivo derived embryos of cattle subject to the presentation of an international veterinary certificate attesting that the embryos were collected, processed and stored in accordance with Chapters 4.8.and 4.10., as relevant."

In non-outbreak situations, some state codes (e.g., Georgia) describe that a certificate of veterinary inspection (CVI) should accompany the embryo shipment, although it is not always enforced (as of October 2023).

In the event of an FMD outbreak in the US, *in vivo*-derived bovine embryos would be considered a negligible risk for transmitting FMD virus if they are collected, processed and stored in accordance with WOAH TAHC Chapters 4.8 and 4.10 and the IETS Manual Chapter 6. Recommendations for the sanitary handling of *in vivo*-derived embryos. Companies involved in international export have the capabilities, knowledge and record keeping capabilities to meet these criteria for domestic movements of *in vivo*-derived embryos during an FMD outbreak.

States managing infected premises and requests for business continuity permits may be quickly overwhelmed. Identifying negligible risk items to remove from outbreak movement permit requirements while preventing FMD spread will lessen the burden on states and provide business continuity opportunities for the safe movement of *in vivo*-derived bovine embryos. Tracking movements into, within and out of control areas is important for outbreak management and future trade discussions. Negligible risk items, like *in vivo*-derived bovine embryos, could be tracked through certificates of veterinary inspection. This would apply to At-Risk Premises and Monitored Premises[1]. Storage tank exteriors must be cleaned and disinfected prior to leaving livestock facilities.

It should be noted that there is no conclusive evidence documenting the risk of FMD transmission from *in vitro* fertilized (IVF) bovine embryos and should not be included in this resolution. This should not be applied to *in vivo*-derived sheep, goat or pig embryos given the species differences in the zona pellucida's permeability to FMD virus.

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[1] USDA Foreign Animal Disease Preparedness and Response Plan (FAD PReP) Foot-and-Mouth Disease Response Plan: The Red Book, October 2020 available at: www.aphis.usda.gov/animal_health/emergency_management/downloads/fmd_responseplan.pdf defines the following:
At-Risk Premises (ARP): Premises that have susceptible animals, but none of those susceptible animals have clinical signs compatible with FMD. Premises objectively demonstrates that it is not an IP, CP, or SP. ARP seek to move susceptible animals or products within the Control Area by permit. Only ARP are eligible to become MP.
Monitored Premises (MP): Premises objectively demonstrates that it is not an Infected, Contact, or Suspect Premises. Only ARP are eligible to become MP. Monitored Premises meet a set of defined criteria in seeking to move susceptible animals or products out of the Control Area by permit.

RESOLUTION:

The United States Animal Health Association urges the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service, Veterinary Services to exempt *in vivo*-derived bovine embryos from the 72-hour national movement standstill required during foot-and-mouth disease (FMD) outbreaks. Prior to leaving livestock facilities, embryo storage tanks must have their exterior cleaned and disinfected with an Environmental Protection Agency-registered product labeled effective against FMD virus. Once FMD control areas are defined, state animal health officials are urged to allow movement of *in vivo*-derived bovine embryos from At-Risk and Monitored Premises (defined in the USDA FMD Response Plan) on a certificate of veterinary inspection rather than an outbreak movement permit.

RESOLUTION NUMBER: 15 Approved

SOURCE: COMMITTEE ON ANIMAL EMERGENCY MANAGEMENT

SUBJECT MATTER: Emergency Management Assistance Compacts for Agriculture

BACKGROUND INFORMATION:

The United States (US) Department of Homeland Security, Federal Emergency Management Agency, Emergency Management Assistance Compact (EMAC) is a national interstate mutual aid agreement that enables states to share resources during times of disaster. Since the 104th Congress ratified the compact, EMAC has become the nation's system for providing mutual aid through operational procedures and protocols. EMAC is administered by the National Emergency Management Association (NEMA), which is headquartered in Lexington, KY. EMAC complements the federal disaster response system, providing timely and cost-effective relief to states requesting assistance from member states who understand the needs of jurisdictions struggling to preserve life, the economy and the environment. EMAC can be used either in lieu of federal assistance or in conjunction with federal assistance, thus providing a "seamless" flow of needed goods, services and personnel to an impacted state. EMAC provides another venue for mitigating resource deficiencies by ensuring maximum use of all available resources within member states' inventories.

The 13 articles of the compact set the foundation for sharing resources from state to state and have been adopted by all 50 states, the District of Columbia, the United States Virgin Islands, and Puerto Rico and are ratified by US Congress (PL-104-321).

The four most commonly referenced articles of the compact (Articles V, VI, VIII, and IX) address the primary concerns of personnel and states offering and receiving assistance. The articles address legal and health issues not covered by standard contracts:

> *Article V - Licenses and Permits*
> *Whenever any person holds a license, certificate, or other permit issued by any state party to the compact evidencing the meeting of qualifications for professional, mechanical, or other skills, and when such assistance is requested by the receiving party state, such person shall be deemed licensed, certified, or permitted by the state requesting assistance to render aid involving such skill to meet a declared*

emergency or disaster, subject to such limitations and conditions as the governor of the requesting state may prescribe by executive order or otherwise.

Article VI - Liability
Officers or employees of a party state rendering aid in another state pursuant to this compact shall be considered agents of the requesting state for tort liability and immunity purposes; and no party state or its officers or employees rendering aid in another state pursuant to this compact shall be liable on account of any act or omission in good faith on the part of such forces while so engaged or on account of the maintenance or use of any equipment or supplies in connection therewith. Good faith in this article shall not include willful misconduct, gross negligence, or recklessness.

Article VIII - Compensation
Each party state shall provide for the payment of compensation and death benefits to injured members of the emergency forces of that state and representatives of deceased members of such forces in case such members sustain injuries or are killed while rendering aid pursuant to this compact, in the same manner and on the same terms as if the injury or death were sustained within their state.

Article IX - Reimbursement
Any party state rendering aid in another state pursuant to this compact shall be reimbursed by the party state receiving such aid for any loss or damage to or expense incurred in the operation of any equipment and the provision of any service in answering a request for aid and for the costs incurred in connection with such requests; provided, that any aiding party state may assume in whole or in part such loss, damage, expense, or other cost, or may loan such equipment or donate such services to the receiving party state without charge or cost; and provided further, that any two or more party states may enter into supplementary agreements establishing a different allocation of costs among those states. Article VIII expenses shall not be reimbursable under this provision.

The United States Animal Health Association (USAHA) recognizes the importance of this process and how invaluable EMAC could be for animal agriculture disease events, such as highly pathogenic avian influenza (HPAI), African swine fever, and foot-and-mouth disease (FMD). Alabama, Georgia, Mississippi, North Carolina, Tennessee and Virginia sent personnel and other resources supported by the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) through direct contract and EMAC to assist Iowa and Minnesota during the 2015 HPAI event. As in 2015, USDA-APHIS-VS resources were significantly reduced early in the 2022-2023 HPAI event, leaving USDA-APHIS-VS at a disadvantage in responding to all affected states similarly. As they did during the 2015 HPAI event, states worked together with USDA-APHIS-VS to control the 2022-2023 outbreaks, however

EMAC was not utilized. In addition to the excellent USDA Incident Management Teams (IMTs) that USDA-APHIS-VS maintains for such situations, state personnel want a consistent, legal, and reliable mechanism to assist other states. EMAC was repeatedly brought up as a means to do so in both the 2020 Foreign Animal Disease Southern Agriculture Functional Exercise (FAD SAFE) and 2022-2023 HPAI events, but there is not currently an effective mechanism within USDA-APHIS-VS to utilize it on behalf of national agriculture events. Supporting EMAC aligns with other USDA-APHIS-VS initiatives to increase state capabilities and capacities, such as the National Animal Disease Preparedness and Response Program (NADPRP) and recent FMD functional exercises (Agriculture Resource Management and Response and FAD SAFE). EMAC provides another means to effectively share resources states have obtained through NADPRP to rapidly respond to events that affect national and international trade.

Even though EMAC has been successfully used in human disaster and disease response events and serves as a personnel and resource force multiplier, it has not been fully incorporated into the standard framework of the Unified State-Federal Animal Agriculture Disease Response. A collaborative state-federal emergency management approach would benefit multiple stakeholders by establishing a standard process for activating the system at the state level and providing reimbursement through cooperative agreements or other financial routes. Once the process is established, USAHA and USDA-APHIS-VS could work together to educate federal and state personnel on using the EMAC process for foreign animal disease response activities.

RESOLUTION:

The United States Animal Health Association (USAHA) requests that the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) participate on a working group of the USAHA Committee on Animal Emergency Management (CAEM) to review the existing state Emergency Management Assistance Compact (EMAC) request structure and assist states in creating a document that develops how animal agricultural EMAC requests can be made with current USDA-APHIS-VS funding structures when animal disease management events occur. This working group should be represented by three state animal health officials, three EMAC subject matter experts, and three USDA-APHIS-VS officials and report findings to CAEM at the next USAHA meeting.

RESOLUTION NUMBER: 16 **Approved**

SOURCE: **COMMITTEE ON ANIMAL EMERGENCY MANAGEMENT**

SUBJECT MATTER: **Foot-and-Mouth Disease Vaccine Distribution – National Veterinary Stockpile Partnership with an Independent Vaccine Distribution Company**

BACKGROUND INFORMATION:

Foot-and-mouth disease (FMD) exercises in the United States and outbreaks in previously free countries such as Japan and South Korea demonstrate FMD vaccine as an effective tool to control, contain, and eradicate the virus. According to United States Department of Agriculture (USDA) Foot-and-Mouth Disease Response Plan-The Red Book, October 7, 2020, “a well-defined state vaccination plan will assist decision makers in prioritizing and distributing vaccine to states that are ready and able to handle the vaccine appropriately and rapidly administer doses based on well-grounded epidemiological principles”.

The expectation from the USDA-Animal and Plant Health Inspection Service - National Veterinary Stockpile is that the state agriculture/livestock agencies securely store vaccine and distribute the correct number of FMD vaccine doses to authorized and accredited veterinarians within the state. Authorized and accredited veterinarians are responsible for obtaining vaccine from the state distribution point, properly storing and accounting for all vaccine assigned to them, maintaining adequate cold chain storage and chain of custody, overseeing administration of vaccine to animals on designated premises and ensuring that vaccinated animals are properly identified and tracked. However, many states are under-resourced to operationalize these efforts during an FMD outbreak.

To improve FMD outbreak preparedness, USDA and the Iowa Department of Agriculture and Land Stewardship (IDALS) conducted a proof of concept exercise, in which IDALS partnered with an independent vaccine distributor to manage the placebo FMD vaccine cold storage, repacking, and distribution process. Independent distributors are already equipped to package, ship, and track the mass distribution of animal health supplies while maintaining the cold chain and chain of custody. In an FMD outbreak, this approach would increase efficiency of the response and reduce time lost by securing cold storage, breaking down pallets, re-packaging vaccine vials, and tracking shipments by federal or state officials who have insufficient personnel and limited or no relevant experience. This would also allow federal and state officials to concentrate their efforts on other vital response activities. Based

on the outcomes of this exercise, it is recommended that the USDA consider an alternative approach to distribution of FMD vaccine during an outbreak.

RESOLUTION:

The United States Animal Health Association requests that the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) adopt policy to utilize an animal health distributor during a foot-and-mouth disease outbreak. A distributor would be utilized for all aspects of distribution, including receipt of vaccine directly from manufacturer or USDA, vaccine cold storage, vaccine repacking and vaccine inserts included, vaccine distribution, vaccine tracking and potential distribution of any other supplies needed to facilitate vaccination (syringes, official tags, etc). Distribution of vaccine would be to licensed accredited veterinarians for distribution to producers or directly to producers who are under the direction of an accredited veterinarian. State animal health officials would provide the names and addresses of the accredited veterinarians or producers for distribution to USDA-APHIS-VS and the distributor(s).

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RESOLUTION NUMBER: 17 **Approved**

SOURCE: **COMMITTEE ON SWINE**

SUBJECT MATTER: **Policy Regarding Allowable African Swine Fever Sample Collectors**

BACKGROUND INFORMATION:

During an African swine fever (ASF) outbreak, the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) authorization for indemnity to depopulate the first detected case within a state or territory will require confirmation by the USDA-APHIS-VS National Veterinary Services Laboratories (NVSL). The USDA-APHIS-VS authorization for indemnity to depopulate any subsequent cases in a state or territory will not need to be confirmed by USDA-APHIS-VS-NVSL but will require:

1) ASF non-negative or presumptive positive result at an approved National Animal Health Laboratory Network laboratory, and
2) Determination of clinical signs compatible with ASF on the affected premises.

Detected cases include feral and domestic swine.

An ASF outbreak in the United States will require a tremendous number of resources including personnel to collect and submit samples for ASF testing for surveillance within control areas, permitted movements from control areas, disease testing to confirm additional cases, etc.

The swine industry developed a Certified Swine Sample Collector (CSSC) program to address expected personnel shortages that may be adopted by states prior to or during an ASF disease response. Participants in the CSSC program and other programs that are developed are critical resources to identify the spread of the disease and enable the swine industry to maintain continuity of business during an outbreak.

RESOLUTION:

The United States Animal Health Association requests that the United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services confirm who is authorized to collect samples during an African swine fever outbreak to supplement state and federal response personnel and that qualifies facilities for indemnification of subsequent cases identified in a state.

RESOLUTION NUMBER: 18 **Approved**

SOURCE: **COMMITTEE ON EQUINE**

SUBJECT MATTER: **Equine Microchip**

BACKGROUND INFORMATION:

Over the last decade, equine identification methods have been the focus of numerous discussions. Currently, there are multiple methods of equine identification and traceability in use in the United States (US). Over the last 5 years there has been a transition to the use of microchips for equine identification in the thoroughbreds, standardbreds, quarter horses and competition horses.

Microchips are a requirement for Jockey Club registration of foals born after January 1, 2017. The Jockey Club provides a free microchip with each registration and genetic sampling kit for foals. Since December 1, 2018, all horses competing in US Hunter Jumper Association sanctioned events have been required to be microchipped. Since 2019, the primary means of identifying standardbreds has been the Bio Thermo ® microchip implanted in the nuchal ligament on the left side of the neck. Effective January 1, 2024, The American Quarter Horse Association will begin the transition to microchips in place of lip tattoos to identify racing quarter horses. The United States Equestrian Federation Board approved a new microchip rule which will require any horse competing in a United States Equine Federation licensed competition after December 1, 2025 to be microchipped.

As various equine associations have implemented microchip identification rules, there have been several roadblocks identified, including the lack of national standards, policies and guidance for utilization of microchips in equids; a limited number of equine veterinarians available for implantation of microchips; the variation in the type of microchips implanted leading to reader issues; and failure to adhere to the international standard of placement for the microchip in equids. With the recognized benefits of microchips for equine health monitoring, traceability, the increase in industry acceptance and promotion of use, there is a need to seek solutions to these identified roadblocks.

RESOLUTION:

The United States Animal Health Association (USAHA) urges the American Association of Equine Practitioners, the American Veterinary Medical Association, the American Horse

Council, the American Association of Veterinary State Boards and equine breed registries to collaborate and develop position and/or policy statements for their respective organization to support the standardized implementation of International Standards Organization (ISO) compliant 11784/11785 microchips in the left nuchal ligament of the equid as a method of official identification. Furthermore, USAHA urges the equine industry to support the utilization of temperature sensing ISO compliant microchips as a means for identification and health monitoring. Lastly, the USAHA urges state veterinary licensing bodies to allow the implantation of equine microchips to be performed by individuals trained by licensed veterinarians.

RESOLUTION NUMBER: 19 **Approved**

SOURCE: **COMMITTEE ON EQUINE**

SUBJECT MATTER: **International Movement of Horses**

BACKGROUND INFORMATION:

The exponential growth in international movement of the competition horse in the past 10 years has challenged the validity of the federal regulations and resulted in welfare issues as well as impeded movement of United States (US) horses for international competitions. The current regulations have led to an increase in the inconsistent application of temporary waivers and has increased the workload of the limited United States Department of Agriculture staff and the equine industry. Furthermore, the advances of science, technology and diagnostic tests, have not been incorporated into the international movement regulations and policies.

The United States Animal Health Association Committee on Equine identifies a need for a collaborative comprehensive review of the data, regulations, policies and procedures related to international movement of equids and equine products to be conducted by a representative group of equine industry and subject matter experts to:

1. Evaluate the current management of equids in US import quarantine facilities to identify potential solutions to address equine health and welfare concerns.
2. Analyze international movement data of equids and equine products to identify trends, challenges and issues related to the international movement of competition horses.
3. Analyze the historic and current use of Memoranda of Understanding (MOUs) and waivers for US competition horses with the intent of developing a standard criterion and science-based template for consistent and timely issuance of waivers.
4. Review the historic use of temporary event quarantines specifically, the MOUs, standards and protocols utilized with the goal of development of science-based recommendations to facilitate expanded international competitions in the US.
5. Review the World Organization for Animal Health's High Health, High Performance Horses framework to identify how the framework can be implemented in the US.
6. Compile analysis and review findings in a written document which identifies current issues with the equine import-export process and propose potential solutions for addressing the challenges.

To truly understand the issues, various segments of the industry need to collaborate to ensure practical, evidence-based solutions can be identified.

RESOLUTION:

The United States Animal Health Association (USAHA) requests the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) to form a discussion group to include representatives from the USDA Equine Health Team, USDA Equine Import/Export Staff, USAHA Committee on Equine, American Association of Veterinary Laboratory Diagnosticians/National Animal Health Laboratory Network laboratories, National Assembly of State Animal Health Officials, American Horse Council, American Association of Equine Practitioners Infectious Disease Committee, United States Equestrian Federation, Jockey Club, American Quarter Horse Association, international/national transporters, brokers and academia (specifically subject matter experts on foreign animal diseases and equine diagnostic testing) to perform a comprehensive review of the international movement of equids and equine products to document concerns, challenges and potential solutions which culminates in a plan and timeline for addressing the international movement needs of the equine industry.

RESOLUTION NUMBER: 21 **Approved**

SOURCE: **COMMITTEE ON EQUINE**

SUBJECT MATTER: **State and Federal Equine Health Staffing Resources**

BACKGROUND INFORMATION:

Across the country, state and federal agencies are facing staffing challenges including a shortage of veterinarians, recruitment and retention of qualified individuals, limited equine expertise and the expansive workload. The equine industry is impacted by these shortages specifically related to the expertise and resources necessary to facilitate the interstate and international movement of competition horses and to manage equine health issues at equine facilities. The United States (US) needs to address the staffing resource issues related to the very diverse growing equine population and the increasing number of equestrian events occurring here and internationally. For example, developing protocols to allow the utilization of accredited equine veterinarians to oversee disease outbreaks would ensure subject matter experts are addressing the needs of the industry. Additionally, equine subject matter experts on state equine advisory councils or working groups would provide the state animal health officials the opportunity for collaboration and communication on equine health issues challenging the state. Ensuring adequate staffing and subject matter expertise for equine health and movement issues in the US is critical. The economic success of the equine industry relies on the prompt and effective response to infectious disease outbreaks and the ability for US horses to participate in national and international events. State and federal agency collaboration with industry to address the identified staffing shortages and expertise gaps is essential for protecting and promoting the equine industry in the US.

RESOLUTION:

The United States Animal Health Association (USAHA) urges the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) to develop mechanisms and protocols to utilize user fees to hire personnel with equine experience to address needs related to equine international movement. Furthermore, USAHA requests USDA-APHIS-VS to host listening sessions regarding international movement of equids and challenges.

Additionally, USAHA urges state animal health officials to engage equine industry subject matter experts and equine focused private practitioners by convening state level equine advisory groups, equine working groups, discussion groups, or task forces with a mission to protect and promote equine health in the states.

RESOLUTION NUMBER: 22 **Approved**

SOURCE: **COMMITTEE ON EQUINE**

SUBJECT MATTER: **Vesicular Stomatitis**

BACKGROUND INFORMATION:

With the recent outbreak of vesicular stomatitis in California, there has been significant impact to the equine industry related to the international and interstate movement of equids. In order to protect the equine industry from the introduction of disease, it is essential for state and federal animal health officials to establish and adhere to adequate and proven import regulations for interstate or international movement. These requirements should be based on science that considers the risk of disease incursion and the associated economic repercussions. In 2015, when the World Organization for Animal Health delisted vesicular stomatitis virus (VSV), the United States Department of Agriculture utilized scientifically documented information to update the VSV response policies. The revised 14 day quarantine reflects the scientific evidence that the virus is contained within the vesicle and does not persist beyond a few days post vesicle rupture. Import requirements including restrictions of equines within prescribed areas, such as a 10 mile radius, and VSV testing requirements, have questionable foundations in the science of VSV epidemiology. It is important to recognize that equine owners and venue managers can experience undue economic hardship from overly restrictive interstate import requirements that are not based on scientific risk. Furthermore, regulatory uniformity would benefit all concerned parties, including equine owners, accredited veterinarians, equine venue managers and the United States as a whole.

RESOLUTION:

The United States Animal Health Association (USAHA) urges the United States Department of Agriculture (USDA) to negotiate with foreign trading partners, including Canada, to limit all vesicular stomatitis (VS) restrictions to counties with confirmed cases of VS. Ideally, each country would request a negative complement fixation test to facilitate the temporary movement of clinically healthy competition horses to and from a VS affected county.

The USAHA urges each state animal health official to remove state regulations pertaining to VS interstate movement mileage or geographic radius restrictions.

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RESOLUTION NUMBER: 23 **Approved as Amended**

SOURCE: **COMMITTEE ON AQUACULTURE**

SUBJECT MATTER: **Prioritizing Farms Enrolled in Comprehensive Aquaculture Health Program Standards for Indemnification**

BACKGROUND INFORMATION:

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) is engaging in rulemaking to codify the voluntary Comprehensive Aquaculture Health Program Standards (CAHPS). CAHPS will establish a framework to improve health management, protect and expand aquaculture business opportunities, promote and facilitate trade and improve resource protection and environmental sustainability. The aquatic animal health teams created within farms enrolled in CAHPS develop and implement Pillar Five, *Response, Reporting and Recovery*, that is triggered by a disease event. This Pillar includes provisions for animal inventory, disposition, cleaning and disinfection. CAHPS enrolled farms should be recognized and qualified for indemnification to support implementation of Pillar Five from the moment of initial disease reporting to USDA-APHIS and/or state animal health officials. The *National Aquaculture Health Plan & Standards (2021-2023),* includes this provision on page 19.

RESOLUTION:

The United States Animal Health Association requests the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) make indemnification and other financial assistance available, as a critical component of aquaculture disease risk management, for eligible private aquaculture facilities where depopulation was required by joint state agency and USDA-APHIS decision making due to an aquatic animal disease.

RESOLUTION NUMBER: 29 **Approved**

SOURCE: **COMMITTEE ON CATTLE AND BISON**

SUBJECT MATTER: **Development of Voluntary Proficiency Testing for Laboratories Performing Trichomoniasis Polymerase Chain Reaction Testing in Cattle**

BACKGROUND INFORMATION:

Trichomoniasis is a venereal disease of cattle caused by the protozoan parasite *Tritrichomonas foetus*, which is transmitted from infected bulls to cows. Trichomoniasis reduces calf production by decreasing fertility and inducing abortions. Infected bulls show no clinical signs. Detection and control of infected bulls is key to containing the disease. Bovine trichomoniasis can be detected by polymerase chain reaction (PCR) amplification, both conventional and quantitative real-time PCR. The majority of the states in the United States (US) require a negative trichomoniasis test for interstate movement/importation of bulls and require that the test be conducted at an American Association of Veterinary Laboratory Diagnosticians (AAVLD) accredited laboratory. AAVLD accreditation is based on International Organization for Standardization (ISO) 17025 accreditation standards. A recent survey of state animal health authorities showed overwhelming approval of a voluntary proficiency testing procedure for trichomoniasis PCR for public and/or private diagnostic laboratories in the US.

The Title 9 Code of Federal Regulations 71.22 addresses the approval of laboratories to conduct official testing and to pass regularly scheduled proficiency testing administered by the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) or its official designee. Historically, USDA-APHIS-VS has been willing to support developing proficiency testing for non-program diseases utilizing the USDA-APHIS-VS National Veterinary Services Laboratories (NVSL) and supported by user-fees. USDA-APHIS-VS currently lacks a trichomoniasis program and/or an established team of trichomoniasis diagnostic experts at the USDA-APHIS-VS-NVSL. Therefore, a working group of trichomoniasis diagnostic experts would need to be formed through the United States Animal Health Association (USAHA) working with the National Assembly of State Animal Health Officials (NASAHO) to advise USDA-APHIS-VS and co-develop a volunteer proficiency testing program for laboratories performing trichomoniasis PCR testing.

RESOLUTION:

The United States Animal Health Association (USAHA) requests that the National Assembly of State Animal Health Officials (NASAHO) work with the United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services to develop a voluntary proficiency testing program for laboratories performing trichomoniasis polymerase chain reaction (PCR) testing in cattle utilizing the advice of a designated working group of trichomoniasis diagnostic experts as determined by USAHA and NASAHO. USAHA further requests that USAHA and NASAHO members encourage state diagnostic laboratories to participate in voluntary trichomoniasis PCR proficiency testing on a regular basis.

RESOLUTION NUMBER: 34 **Approved as Amended**

SOURCE: **COMMITTEE ON ONE HEALTH**

SUBJECT MATTER: **Increased Fiscal Year 2025 Funding for the United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services National Rabies Management Program to Enhance Rabies Surveillance, Oral Rabies Vaccination Programs in Urban Landscapes and request the Development of an Oral Rabies Bait/Vaccine Bank**

BACKGROUND INFORMATION:

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS), National Rabies Management Program (NRMP) has demonstrated that strategic implementation of cooperative oral rabies vaccination (ORV) programs targeting wildlife are cost-effective in reducing rabies transmission to protect human and animal health and reduce the cost of endemic rabies. The World Organization for Animal Health (WOAH) determined that the most effective strategy to control terrestrial rabies targets the sources of infection (i.e., wildlife vector populations) with landscape scale control efforts. ORV programs are designed to immunize targeted wildlife species by increasing the percentage of rabies-immune animals within vaccination zones, resulting in the reduction of rabies cases, prevention of viral spread (Phase 1 goal of the NRMP) and eventually eliminate the raccoon rabies variant (Phase 2 goal of the NRMP).

A comprehensive raccoon rabies management strategy has been cooperatively developed with federal, state, provincial and local partners for the elimination of the raccoon rabies variant in the United States (US) and Canada. In federal fiscal year 2023, the NRMP and cooperators distributed >8.7 million ORV vaccine/baits in 13 eastern states to combat raccoon rabies and ~1 million in Texas to prevent the reemergence of canine rabies in coyotes and grey fox rabies along the border with Mexico as well as to continue field effectiveness studies on oral rabies vaccine baits targeting coyotes.

The United States National Plan for Wildlife Rabies Management (USNP) is a 5-year (2023-2027) framework for collaborative management of wildlife rabies in the US to protect humans, domestic animals and wildlife. Development of the USNP began in September 2021 when more than 100 professionals from 52 agencies and organizations

(e.g., federal, state, industry, university) developed the NRMP, and it was released in September 2023. The scope of the plan primarily addresses management of rabies in raccoons, coyotes and grey foxes in the US through oral rabies vaccination, and to a lesser degree skunks, Arctic foxes, free ranging dogs, and mongoose. In addition, the plan addresses surveillance of vampire bats, as oral rabies vaccines are not currently available for managing bat rabies.

Ongoing national supply chain problems are causing concern for the NRMP to meet the needs of licensed bait/vaccine units for ORV distribution. There are two companies manufacturing vaccine. The units are made to order, but the shelf life is only 18 months. The annual ORV distribution is time-sensitive depending on the geographic location, including Maine to Alabama for raccoon rabies and Texas for canine rabies in coyotes and grey fox rabies. Timing for newborns to be successfully vaccinated is critical. Emergency distribution in ORV sensitive areas can occur at any time of the year. Thus, an oral rabies bait/vaccine bank is required to eliminate any lapse in the ORV schedule.

The NRMP has been level funded since 2018. The requested funding of $36 million will allow USDA to:

- Continue, refine, and improve the enhanced rabies surveillance program including support of a Wildlife Services Biologist conducting between 5,000-7,000 field rabies tests each year using the Direct Rapid Immunohistochemistry Test (DRIT) or the Indirect Rapid Immunohistochemistry Test (IRIT). (which represents 8% of all rabies testing in the US)
- Implement contingency actions in response to rabid animals in sensitive areas
- Continue Phase 1 of the NRMP, to maintain existing ORV programs to control rabies and prevent spread in wildlife populations
- Continue the evaluation of novel and US-licensed vaccines and baits
- Continue studies related to rabies control in skunks, mongoose, and vampire bats
- Enhance the operations of Phase 2 of the NRMP to eliminate the raccoon rabies variant in the US
- Plan and implement a critically needed rabies bait/vaccine bank or stockpile

RESOLUTION:

The United States Animal Health Association (USAHA) requests the United States Congress to appropriate a minimum of $36 million annually for the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS), National Rabies Management Program.

Additionally, USAHA requests that USDA-APHIS-WS enhance wildlife rabies surveillance and further develop a critically needed oral rabies bait/vaccine bank for the National Rabies Management Program, should adequate funds be provided.

RESOLUTION NUMBER: 35 Approved

SOURCE: COMMITTEE ON SHEEP, GOATS, AND CAMELIDS

SUBJECT MATTER: Johne's Disease Prevalence

BACKGROUND INFORMATION:

The current prevalence of Johne's disease in United States (US) sheep and goat herds is unknown. The infection rate in sheep based upon the National Animal Health Monitoring System (NAHMS) 2001 Sheep Study was approximately 5 percent. This figure was based upon enzyme-linked immunosorbent assay (ELISA) testing of a sub-sample of up to 40 sheep within approximately 682 flocks, assuming test sensitivity of 50 percent. Based on knowledge of ELISA testing sensitivity today, the true prevalence of Johne's disease in US flocks and herds is likely to be much higher.

This study has never been performed in goats. Even though it was initially planned for the NAHMS 2009 Goat Study, Phase II biological testing was cancelled at the last minute. However, the NAHMS 2019 Goat Study indicates this disease is likely present on goat farms. It is critical that a new Johne's prevalence study be performed to provide an accurate assessment of the prevalence.

RESOLUTION:

The United States Animal Health Association requests that the United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services conduct a *Mycobacterium avium* ssp. *paratuberculosis* prevalence study with the samples to be collected during the National Animal Health Monitoring System (NAHMS) 2024 Sheep Study. In addition, a prevalence study utilizing banked serum and/or fecal samples from the NAHMS 2019 Goat Study should be conducted.

RESOLUTION NUMBER: 36 **Approved**

SOURCE: **COMMITTEE ON SHEEP, GOATS AND CAMELIDS**

SUBJECT MATTER: **To Urge the Establishment of Accurate Testing Protocols for *Mycoplasma ovipneumoniae (M. ovipneumoniae*), to Include Differentiation Between *M. ovipneumoniae* and a Newly Identified Respiratory-associated *Mycoplasma* Species (*Mycoplasma* nov. sp.[1]) and to Urge Completion of Phylogenetic Analysis of Full-length Sequences of *M. ovipneumoniae* Isolated from Multiple Species.**

BACKGROUND INFORMATION:

Mycoplasma ovipneumoniae (M. ovipneumoniae) is endemic in wildlife species (captive and free-range), in addition to domestic sheep and goats.

Many published polymerase chain reaction assays used for *M. ovipneumoniae* detection are not specific for *M. ovipneumoniae*, rather indiscriminately detect *Mycoplasma* nov. sp. in addition to *M. ovipneumoniae*, therefore resulting in the potential for false positive results when testing for *M. ovipneumoniae.*

This novel species of mycoplasma has not been an identified cause of disease. It would be beneficial to both domestic and wildlife species to ensure accurate testing that differentiates *M. ovipneumoniae* and *Mycoplasma* nov sp.

RESOLUTION:

The United States Animal Health Association (USAHA) urges the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service and USDA, Agriculture Research Service (ARS) to establish accurate testing protocols for *M. ovipneumoniae* that include differentiation between *Mycoplasma ovipneumoniae* and other *Mycoplasma* spp., including the recently identified *Mycoplasma* nov. sp.

Further, USAHA urges USDA-ARS to complete phylogenetic analysis of full length sequences of multiple *M. ovipneumoniae* isolates from different species to fully understand the genotypes, phylogeny, and pathogenesis of this bacterium that has been identified in multiple domestic and wildlife species.

[1] Herndon DR, Beckmen KB, Highland MA. Draft Genome Sequence of a Novel *Mycoplasma* Species Identified from the Respiratory Tract of an Alaska Moose (*Alces alces gigas*). Microbiol Resour Announc. 2021 Feb 25;10(8):e01371-20. doi: 10.1128/MRA.01371-20. PMID: 33632866; PMCID: PMC7909091.