

Recommendation Number	2020 TB Review Recommendations	Michigan AVIC/MDARD State Veterinarian /MDNR response	Action Implemented	Additional Information (Attachments)
1	*High Priority* Require signed herd plans to be in place that outline expectations and ensure compliance with recommendations in advance of beginning a test and remove program.	This Recommendation has been implemented and herd plans have been created and are in place for the 3 current herds that are under test-and-removal programs. Herd Plans for any future TB infected herds will be developed and submitted to USDA Staff for review following receipt of USDA official modeling results and discussions with herd owners.	This recommendation has been implemented	Three most recent herd plans.
2	*High Priority* Develop and implement a system for complete herd reconciliations that ensures all animals are accounted for in 98% of the MAZ herds.	MDARD will review our current IR process and investigate ways to increase the number of animals that can be accounted for in the reconciliation process. We will focus on the herds with the highest rate of failure in IRs and work with those herd owners to improve results. The ability to reconcile 100% of animals in herds is dependent upon close to 100% tag retention rate. In available studies, the average ear tag retention rate is approximately 80% for adult cattle after 4 years and varies greatly between farms (sometimes being as low as 20%). This rate declines with the age of the animal and the length of time from the tag application date. To achieve full compliance, producers would have to be required to maintain and provide MDARD with full records and they may not be able to if a tag is lost and the animal can't be identified. From August 2019 through July 2020 there were 289 IR's conducted, including 25,664 animals. From these reconciliations 1,394 RFID numbers were placed on the watch list resulting in a 94.6% reconciliation rate.	Ongoing	N/A
3	*High Priority* Require herds undergoing annual whole herd testing to save tags from animals that die on the farm between tests and present these tags to the testing staff when they arrive for whole herd testing.	See Response for Recommendation 2	Ongoing	N/A
4	*High Priority* Require producers to keep records on animals they retag themselves including those going to the market. These records must be presented to the testing team at the time of the whole herd test.	See Response for Recommendation 2	Ongoing	N/A
5	*High Priority* Require mandatory reporting by owners when animals are found to be missing on herd reconciliations.	See Response for Recommendation 2	Ongoing	N/A
6	*High Priority* Follow up with owners of previously infected herds every 180 days to ensure they are complying with the agreement of the quarantine release. Producers should be held to the agreement they made by signing the document and the document should be updated if there is a change in the program such as the EWB.	Based on the recommendations from the TB Review Team in 2020, MDARD has discontinued quarantine release herd plans and replaced them with Test-and-Removal herd plans. With this new protocol, the required testing post quarantine will be outlined in the quarantine release document, rather than an addendum to the quarantine release. MDARD will expire quarantine release addendums for herds under the previous model after three years. Herds will be required to follow all regulations applicable to the zone in which they are located following quarantine release. In the MAZ and PI counties, each herd is visited twice yearly for WRM programs, and each herd undergoes an annual Whole Herd Test. If positive herds are found outside the MAZ, required follow-up testing post quarantine release will be outlined in that document. MDARD will track these herds to ensure that subsequent testing is completed as required.	This recommendation has been implemented	N/A
7	*High Priority* Require signed herd plans to be in place that outline expectations and ensure compliance with recommendations in advance of beginning a test and remove program.	See Response for Recommendation 1	Implemented	N/A
8	Review the MOU to confirm which information metrics should continue to be included in both semiannual and annual reports or if certain metrics should only be included annually and apply this to future MOU's.	Recommended changes to the current MOU reporting requirements have been developed and will be included in future MOU discussions.	Implemented	N/A
9	Add new Presque Isle and Buffer County cattle surveillance reporting section into the semiannual and annual reports to capture surveillance data and activities required for these counties as part of the 2020 MOU.	Reporting of surveillance in Presque Isle County and the Buffer Counties were included in the FY 2020 annual report and will be included in future annual and semi-annual reports until such time as those programs are completed or replaced with alternate programs.	This recommendation has been implemented	N/A

10	Define language in the next MOU that allows for buffer zone whole herd testing to replace required circle testing in areas of geographic and temporal overlap. Additional circle testing should not be required in areas where sufficient buffer zone whole herd testing has been completed in the previous 6–12 months or is ongoing.	Recommended changes to this section of the MOU have been developed and will be included in future MOU discussions.	Will complete in new MOU	N/A
11	Consolidate all relevant documents containing components of the herd plan into a single document with supporting documents attached.	The herd plans that have been created and are in place for Herds #77, 79, and 80 are one pdf file. This herd plan format will continue with any future TB infected herds.	This recommendation has been implemented	N/A
12	Ensure copies of all documents are in paper file if that is to be used as reference file.	AID utilizes electronic files for the official records in the TB program. All AID staff are provided the tools and privileges necessary to access this electronic filing system 24 hours a day. Individual AID personnel may elect to and maintain their own paper-based filing system to assist in completion of assigned duties at their discretion, however, such filing systems should not be considered official files. AID will continue to encourage the use of electronic records and discourage the use of redundant paper filing systems.	Ongoing	N/A
13	*High Priority* All of the 6 herds of 25 head or more that opted out of the EWB program should be monitored quarterly, four times per calendar year, for potential movement violations.	MDARD's current processes of annual testing and requiring pre-movement permits will be closely monitored in these herds to document that movements from these herds are direct to slaughter. These herds will undergo yearly testing and will require permits prior to movement. MDARD's permitting system will not allow creation of a permit for any destination other than direct to slaughter for these herds.	Ongoing	N/A
14	*High Priority* Complete cattle testing in one third of the herds per the requirements of the MOU in Cheboygan, Crawford, and Otsego County by the end of calendar year 2020 and ongoing years.	Any cattle testing requirements that could have been necessary for 2019 deer surveillance shortfalls would be satisfied through testing that was conducted as part of the buffer county surveillance program during the April 1, 2020 through March 31, 2021 season. In the upcoming April 1, 2021 through March 31, 2022 buffer county surveillance season, MDARD will conduct any additional testing beyond the 150 herds included in that program, which may be necessary to meet the requirements of the MOU and the letter received from Dr. Burke Healey dated March 1, 2021.	Ongoing	N/A
15	*High Priority* Initiate surveillance in free-ranging white-tailed deer per the requirements of the MOU in Cheboygan, Crawford, and Otsego County.	Surveillance in free-ranging deer is ongoing in the named counties. No-cost disease control permits and crop depredation permits continue to be offered in Cheboygan, Crawford, and Otsego counties. Targeted testing of sick deer occurs statewide year-round.	Ongoing	N/A
16	Define the specific MDNR testing interval for free ranging white-tailed deer using 365 day, 12 month, or calendar dates. This recommendation is based on discrepancies noted in section II, in 2 and 3 of the findings above.	The specific MDNR testing interval will continue to be based on calendar year, with harvest dates from January 1-December 31 st . While this interval has not changed, the description of these dates has been adjusted for clarity on emailed updates to partners as well as the website. Annual surveillance summaries will likely continue to be finalized around March of the following year based on timing for diagnostic results.	Completed	N/A
17	Notate the start date of the 3-year test cycle for each free-ranging white-tailed deer circle test area in the annual report.	The start date of the 3-year test cycles will be noted in the annual report.	Completed	N/A

18	MDNR should collaborate with MDARD and APHIS WS to facilitate increased public education and outreach.	<p>MDNR and MDARD do routinely collaborate, along with other partners on outreach and education for producers, sportsmen and the general public. These efforts are ongoing and we will work to continually improve the messaging to result in a clear understanding of program goals. Some of the plans that we are exploring include:</p> <ul style="list-style-type: none"> •Shift the content of "Herd & Hunter: TB Connections" meetings to a digital and print format while in-person gatherings cannot be held. Information will be available on the TB webpage, emailed to the DMU 487 hunter contact list, and included with print and digital copies of the cattle and hunter newsletters that will be made available in the spring and fall. •Develop new material to educate hunters on the human health risks of bTB in deer and steps they can take to help prevent exposure. •Identify new "community leaders" who are willing to share DNR and/or MDARD messages and information around their networks and communities. •Utilize Farm Bureau's daily electronic news system to provide bTB information/updates year-round (previously, this resource was just used for head collection messaging during hunting seasons). •Expand the distribution and influence of select messages by utilizing the communication channels of key stakeholders. •Share deer observation and harvest data collected from DHIP and PLAN grant recipients with landowners who participated in the grants. DNR will analyze data and discuss results with participants in order to help inform the future deer management by these hunters and reinforce the importance of antlerless harvest. •Dedicate a portion of the recently hired Atlanta wildlife technician's work hours to education and outreach with hunters and landowners in Alpena and Montmorency counties, which is the coverage area for that position. •Record an interview on bTB and deer management on MDARD's podcast series, "Fresh from the Field." •Refine and distribute communication materials that help to define and distinguish the WRM and EWB programs. •Create new educational resources for producers that identifies risk factors and pairs them with their solutions. 	Ongoing	N/A
19	*High Priority* VS-Michigan should confirm that signed herd plans are in place that outline expectations and ensure compliance with recommendations in advance of beginning a test and remove program for each herd.	The MI AVIC will monitor progress with herd plan negotiations between MDARD and the producer. The MI epidemiology officer will not send out a work order request for any testing in the affected herd until the herd plan is in place.	Ongoing	N/A
20	*High Priority* VS-Michigan should monitor and confirm MDARD is performing whole herd tests in one-third of the herds in Cheboygan, Crawford, and Otsego County by the end of calendar year 2020 and ongoing years.	The MI AVIC will monitor progress through semiweekly updates at Michigan Tuberculosis management meetings.	Ongoing	N/A
21	Recommend that APHIS WS personnel participate in an expanded role in the WRM and EWB verification activities due to their expertise in wildlife control efforts.	<p>APHIS WS will: 1. Conduct a winter and summer verification to ensure producers have completed recommendations from previous WRM verifications and that standards were correctly applied based on the principles of wildlife biology. 2. Offer voluntarily Targeted Deer Removal (TDR) to all producers. 3. Create a WRM map of the farms deemed highest risk by APHIS WS, documenting pasture boundaries (winter/summer), unprotected feed, water features, other wildlife attractants, etc. 4. Complete the Risk Evaluation Questionnaire. This should be viewed as an independent audit that can identify gaps in wildlife biosecurity on farms that received passing WRM verification .5. Conduct monthly FLIR surveys and compile data using Survey 123 and the Collector applications for a period of one year. These surveys will offer a rough index of deer activity levels on the farm and allow APHIS WS personnel to assign a level of risk based on deer location and proximity to feed storage areas and livestock. 6. Group farms according to number of deer observed during FLIR Surveys, their location on the farm, and level of biosecurity observed on the farm</p> <p>Group #1 – farms needing immediate biosecurity upgrades: APHIS WS will meet with MDARD, once all premises have been evaluated, to discuss those farms that need immediate attention. MDARD/APHIS WS would create a solid plan for improvement. Group #2 – farms with minimum biosecurity in place, but with room for improvement: APHIS WS will meet with MDARD, once all premises have been evaluated, to discuss areas for improvement in the producer's biosecurity plan. Future Activities: Starting in the winter of 2022: Begin implementation of this program on all WRM-verified farms in Montmorency and Alpena counties north of the Enhanced Wildlife Biosecurity (EWB) Zone (approximately 120 farms), as funding allows. Starting in the winter 2023: Begin implementation of this program on all WRM-verified farms in one of the buffer counties as determined by MDARD and APHIS WS outside of the MAZ, as funding allows -OR- WS resumes surveillance in Presque Isle County for one year after all the recommended changes have been made and the infrastructure is in place.</p>	Ongoing	N/A
22	Recommend MDARD conduct an immediate evaluation of the EWB to determine if more cost-effective biosecurity methods can be implemented to separate deer from domestic livestock. If not, consider discontinuing the EWB and reallocating funding to higher value activities.	The information that USDA WS collects in their projected work in response to item #22 will be used to improve both the overall WRM and the EWB programs. We will compile the data that we collect on the effectiveness of the components of the EWB area in the next year. One known challenge in the EWB program is producer compliance with fully utilizing the infrastructure improvements that have been made on those farms. In the past year, we have shifted the role of the field wildlife biologist position in MDARD to more fully manage the EWB program and have streamlined our compliance activities for more rapid response to noncompliance issues. Having this position in the field and continually monitoring compliance will provide us with more detailed information about herd protections and areas for improvement. We strongly feel that the WRM/EWB programs are our best method for prevention of disease spill over to cattle and will continue to put resources toward these critical efforts.	Ongoing	N/A

<p>23</p>	<p>Continue and enhance the education and outreach efforts towards producer and sportsman groups.</p>	<p>MDARD and DNR will continue to collaborate with other partners on outreach and education. Plans for possible areas of enhancement include:- Shift the content of "Herd & Hunter: TB Connections" meetings to a digital and print format while in-person gatherings cannot be held. Information will be available on the TB webpage, emailed to the DMU 487 hunter contact list, and included with print and digital copies of the cattle and hunter newsletters that will be made available in the spring and fall.-Develop new material to educate hunters on the human health risks of bTB in deer and steps they can take to help prevent exposure.-Identify new "community leaders" who are willing to share DNR and/or MDARD messages and information around their networks and communities.-Utilize Farm Bureau's daily electronic news system to provide bTB information/updates year-round (previously, this resource was just used for head collection messaging during hunting seasons).-Expand the distribution and influence of select messages by utilizing the communication channels of key stakeholders.-Share deer observation and harvest data collected from DHIP and PLAN grant recipients with landowners who participated in the grants. DNR will analyze data and discuss results with participants in order to help inform the future deer management by these hunters and reinforce the importance of antlerless harvest. -Record an interview on bTB and deer management on MDARD's podcast series, "Fresh from the Field."-Refine and distribute communication materials that help to define and distinguish the WRM and EWB programs. -Create new educational resources for producers that identifies risk factors and pairs them with their solutions.</p>	<p>Ongoing</p>	<p>N/A</p>
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