



# Montana Johnes Control Program Rules & Standards

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## *I. Introduction*

This document outlines the Montana Johne's Control Program (MJCP) standards and provides specific information on administration of the program, program elements and procedures, and laboratory procedures. The MJCP consists of three basic elements:

- 1) education to inform producers about preventing, controlling, and eliminating the disease;
- 2) management to work with producers to establish good management strategies on their farms; and
- 3) herd testing and classification to demonstrate the level of risk of JD on the farm.

Johne's is a reportable disease in Montana per Administrative Rule of Montana (ARM) 32.3.104. Johne's positive animals are not subject to quarantine in Montana, but there are federal restrictions on the movement of positive animals across state lines. Title 9, Code of Federal Regulations (9 CFR), part 71, contains general provisions for the interstate transportation of animals, poultry, and animal products, while part 80 pertains specifically to the interstate movement of domestic animals that are positive to an official test for Johne's disease (JD). These regulations provide that cattle, sheep, goats, and other domestic animals that are positive to an official test for JD may generally be moved interstate only to a recognized slaughtering establishment or to an approved livestock facility for sale to such an establishment. The animals must bear an official ear tag and be shipped with an owner-shipper statement.

*II. Administration of the Program*

**A. Johne's Disease Certified Veterinarians (JDCV)**

Johne's Disease (JD) testing must be conducted by Montana Deputy State Veterinarians that have completed the Johne's Disease Training requirement.

**B. Exceptions to Deadlines**

JDCV must follow deadlines for the herd management plan and testing except when the Office of the State Veterinarian determines that there are extenuating circumstances. The extenuating circumstances must make it impossible to meet the deadline established for a herd. The animal health official will set a new deadline in consultation with the herd owner, or his or her representative, to accomplish the required activities at the earliest opportunity. The new deadline must be consistent with the principles of JD control and eradication.

### *III. Program Elements and Procedures*

#### **A. Education**

##### 1. General

Education is core to development of a successful herd management plan. This element should provide producers with basic JD information, effective management strategies for controlling and eliminating the disease, and information on the various aspects of the program. Education can take place through group workshops, one-on-one sessions, or through online training. A record of participation should be kept. In the education element of the program, producers should receive information on the topics indicated below. All education topics need to be completed before a producer will be accepted into the program. Educational materials can be found in Appendix 4.

##### 2. Required topics for education

- i) Basic JD information: cause, clinical stages, transmission, Etc.
- ii) Management strategies for:
  - a) Manure and waste
  - b) Colostrum and milk
  - c) Calves and young stock
  - d) Additions and high-risk animals
  - e) Biosecurity
  - f) Infected animals
- iii) Control and testing strategies, including:
  - a) Testing options
  - b) Test interpretation
  - c) Using test results
- iv) State program components
  - a) Options for program participation

## **B. Requirements by Program Level**

The MJCP consists of 5 levels (0-4). Program requirements of all levels include development of a Herd Management Plan and adoption of Johne's Best Management Practices.

### **1. Herd Management Plan**

The Animal Health Bureau, in conjunction with the herd owner and their JDCV, will develop a herd management plan to minimize the introduction and spread of MAP in the herd. A copy of the management plan must be submitted to the Animal Health Bureau for review and approval.

Guidelines for developing a herd management plan are reviewed in the "Handbook for Veterinarians and Dairy Producers" third edition, 2003; the "Handbook for Veterinarians and Beef Producers" third edition, 2003; and the "How to Do Risk Assessments and Management Plans for Johne's Disease" 2003. Copies of these documents are available through the Ruminant Health Programs, NCAHP, VS. The herd management plan should review applicable topics outlined below under "3. Johne's Disease Best Management Practices" that prevent the calves and young stock from becoming infected with MAP.

### **2. Adoption of Johne's Best Management Practices**

Herd specific Best Management Practices will be documented in the Herd Management Plan.

- i) Johne's Disease Best Management Practices - General
  - a) Animal identification—All cattle should be individually identified using an identification method approved by the State of Montana. It is recommended that all animals in participating herds be individually identified using official eartags. Any regulations issued in 9 CFR regarding animal identification with other animal health programs still apply.
  - b) Minimum biosecurity measures—These measures are recommended to reduce exposure of young animals to manure or milk from cattle of unknown JD status. The herd management plan should emphasize the following biosecurity measures:
    - 1) Keep maternity and calving areas clean, dry, and free of manure. Wherever possible, use individual calving pens, or minimize cow density. The maternity and calving area should not house non-calving or sick animals, nor should it be immediately adjacent to mature animal housing areas.
    - 2) Ensure animals added to the herd come only from status-level or documented low-risk sources. Record the source and manage additions as higher risk animals unless you have evidence to the contrary.
    - 3) Minimize the exposure of young stock to manure from adult animals.
    - 4) Minimize exposure of livestock to other cattle and other susceptible animal species that may be infectious, such as sheep, goats and wild ruminants.
    - 5) Feed calves colostrum from an individual, identified, low-risk, test-negative cow, or a suitable quality colostrum replacer.
    - 6) Minimize contamination of feed, water, equipment, and vehicles with manure.
    - 7) Segregate, test, and remove clinical suspects from the herd as soon as possible. Make recommendations to reduce the risks from official test-positive cattle by humanely euthanizing the animals or sending them to slaughter.

- ii) Best management practices—Dairy herd specific:
  - a) Immediately separate from adult animals any heifer calves and bull calves that will be retained in the herd or sold for dairy or breeding purposes.
  - b) After receiving colostrum, only give calves pasteurized milk or a quality milk replacer.
  - c) Keep young stock free from exposure to the manure of mature cattle, house by age, and separate from older animals.
  
- iii) Best management practices—Beef herd specific:
  - a) Minimize the density of cow and calf pairs as much as possible.
  - b) Use feeding practices that reduce manure contamination of water, feed, and feeding areas as much as possible.
  - c) Raise weaned replacement animals physically separate from older animals.
  
- 3. Testing requirements vary as follows by program levels:
  - i) Level 0-Unmanaged risk
    - a) No action has been taken towards management of Johne's risk or spread. No testing completed.
  
  - ii) Level 1-Evaluated risk
    - a) All individual and herd testing is optional but strongly encouraged. Specifically, testing of high-risk cattle. JD testing should be based on a plan with clear action determined prior to testing. Clinical and test-positive cattle should be removed or separated from the herd.
  
  - iii) Level 2-Managed risk
    - b) Whole herd testing on animals >2 years of age is required as well as the removal of clinical and test positive animals from the herd.
  
  - iv) Level 3-Assurance
    - c) Annual whole herd testing on animals >2 years of age is required as well as the removal of clinical and test positive animals from the herd. Level 3 status is achieved with two years since a herd has had a clinical or test positive case.



- v) Level 4-High assurance
  - d) Annual whole herd testing on animals >2 years of age is required as well as the removal of clinical and test positive animals from the herd. Level 3 status is achieved with five years since a herd has had a clinical or test positive case.

Testing protocols for all program levels can be developed using the guidelines provided in Appendix 2.

Additional requirements for levels 1-4 of the MJCP:

4. Enrollment application

The enrollment application should include contact information, location, and basic herd demographics. It may be included in the herd management plan and updated annually.

5. Renewal

To continue in the program as a Johnes' Managed Herd, a herd owner and JCV must review and update the Herd Management Plan annually. The updated Herd Management Plan must be submitted to the Animal Health Bureau between 60 days before and 60 days after the anniversary date. A copy of test results must also accompany the herd management plan. A herd may remain at any level for up to 14 months (up to 36 months for level 4 herds).

## C. Additional information

### 1. Requirements for entry to levels 2-4

Herd owners enrolling in the herd testing and classification must meet all the requirements for of Level 1, including a herd management plan and adoption of best management practices.

### 2. Testing

All samples must be collected by, or under the supervision of, an accredited veterinarian, an animal health official, or authorized testing agent (employee of the Department of Livestock (DOL)). All samples from herds whose owners are applying for herd classification must be submitted to an approved laboratory. The intended laboratory should be specified in the herd management plan.

- i) All animals specified in the testing protocol must be tested within a 4-month timeframe. The 4-month timeframe includes the 2 months before and the 2 months after the anniversary date. Multiple test dates are allowed including split-herd testing or rolling-herd testing provided that all animals are tested within the specific timeframe.
- ii) Animals positive to a screening test should be classified as a suspect for MAP infection. It is recommended that the status of suspects is confirmed using an official JD test unless MAP has already been confirmed on the premises.
- iii) It is recommended that animals with positive results on an official JD test be identified as infected, separated from the herd, and restricted to the premises. When infected cattle leave the herd, it is recommended that they be humanely euthanized or go directly to slaughter.
  - a) If an animal in a classified herd tests positive to an official JD test, the herd must be downgraded to the appropriate classification level as determined by the Animal Health Bureau.
  - b) Animals crossing state lines must do so in accordance with 9 CFR, part 80, which requires an owner-shipper statement (a signed statement made by the owner or shipper) that declares the animal as infected; provides the official ear tag number(s), origin, destination, consignor and consignee; and directs that the animal go directly to slaughter.

- iv) The process for appealing the status of an official JD test-positive animal is described in Appendix 3.
- v) If an animal is removed from the herd while screening test results are pending, a fecal sample should be collected, submitted, and held at the laboratory. The Office of the State Veterinarian will make the final classification of the animal and herd.

3. Animal identification

All cattle must be individually identified using an official identification method approved by the State animal health official. Any regulations issued in 9 CFR regarding animal identification with other animal health programs will apply.

4. Herd additions

- i) For levels 1 and 2:  
There are no purchasing restrictions at these levels of the program. However, it is strongly recommended that animals are purchased from sources with a classification level (or testing equivalent) that meets or exceeds that of the herd it is entering. The producer is responsible for providing proof of classification level of any herd additions.
- ii) For levels 3 and 4:
  - a) If purchasing animals from unclassified (level 0) or levels 1 to 2 herds, the herd will be demoted to level 2 (highest level of program without animal movement restrictions). The producer is responsible for providing proof of classification level of any herd additions.
  - b) If purchasing animals from levels 3 or 4 herds:
    - 1) If the purchase is from the same or higher level than the herd's classification, the herd retains its classification and no additional testing is required. The producer is responsible for providing proof of classification level of any herd additions.

2) If the purchase is from a lower level (level 4 purchasing from level 3), then:

(i) The herd will be dropped from level 4 to 3.

OR

(ii) The herd may maintain its level 4 classification if all purchased animals from the level 3 herd are tested three times with an official Johne's Disease test (OJT) at 6-month intervals, starting at not less than 24 months of age, and all tests are found to be negative. Purchased animals must then be included in the next herd classification test.

c) Once all herd additions have been granted status equal to the herd's current classification, the herd may advance in the classification program by following the testing requirements defined in Appendix 1.

d) Heifers raised off the premises must be raised with the proper biosecurity measures in place and with animals at an equal or greater classification level.

e) Classified herds may use embryos from other cattle herds if the embryos are processed according to International Embryo Transfer Society protocols ([https://www.iets.org/pdf/Research\\_subcommittee\\_bibliographic\\_analysis\\_2012.pdf](https://www.iets.org/pdf/Research_subcommittee_bibliographic_analysis_2012.pdf)). Embryo transfer recipient cows must meet herd addition requirements.

f) Animals purchased from other states will be assessed on a case-by-case basis to determine their level of classification.

5. Purchasing a classified herd

i) If a classified herd is purchased, testing is not required if the purchased cattle remain on the premises. A new certificate will be issued in the new owner's name. The anniversary date will remain the same. The producer is responsible for providing proof of classification level of any herd additions or purchases.

ii) If part, or all of a classified herd is purchased and the cattle move directly to a premises without cattle, they may retain their current classification level without testing; however, it is recommended that the risk of exposure to MAP from the environment is evaluated. A new certificate should be issued in the new owner's name. The anniversary date of the new herd is established by the original classification date, unless a new herd classification test of the purchased cattle is requested.

#### IV. Test Definitions and Abbreviations

1. Johne's disease testing: diagnostic tests used to aid in determining if an animal has been exposed to or is infected with *Mycobacterium avium* subspecies *paratuberculosis*.
  - a. Official Johne's disease test (OJT)

An individual organism detection test approved by the Administrator and conducted in a laboratory approved by the Administrator.
  - b. MAP detection test (MAPDT)

An organism detection test approved by the Administrator and specific for MAP. This includes either screening (multiple animals or environmental) or official (individual) tests conducted in a laboratory approved by the Administrator.
  - c. Screening test  

A test approved by the Administrator and conducted in an approved laboratory to diagnose MAP to aid in determining the presence or absence of MAP within a herd. A screening test cannot be used to classify an individual animal for the purposes of the program. An animal found positive by a screening test should be considered a JD suspect and may be further tested using an official JD test. However, if the animal is showing clinical signs of JD or is from a herd previously diagnosed with MAP, it should be considered positive based on a screening test.
  - d. Environmental fecal sampling  

A manure sample that is collected from an area where a large proportion of the herd is commingled. The sample is tested using a MAP detection test.

#### V. Laboratory Procedures

##### A. Approved Laboratories

Official JD tests and screening tests used must be completed by AAVLD and/or NAHLN approved laboratories. A list of currently approved laboratories is available at the following link:

[https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/lab-info-services/sa\\_approved\\_labs/ct\\_approved\\_labs](https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/lab-info-services/sa_approved_labs/ct_approved_labs)

##### B. Approved Program Tests

1. Official Johne's disease test (OJT)—An organism detection test done on an individual sample from a single animal approved by the Administrator and conducted in a laboratory approved by the Administrator. MDOL will accept pooled samples in testing protocols as defined in Appendix 2.
  - i) Fecal and tissue culture—Culture is the standard organism-based test. Methods include both solid and liquid culture preparations. Protocols for recommended methods can be obtained from NVSL upon request. Fecal and tissue cultures are considered an MAPDT.
  - ii) Direct fecal polymerase chain reaction (PCR)—Direct PCR tests can detect the presence of MAP without having to grow it. An advantage of the PCR test is that it takes less than 3 days to conduct. However, the disadvantages are higher cost and the potential of missing low shedders. Direct fecal PCR tests are considered an MAPDT.
  - iii) Pooled fecal cultures or PCR—Fecal samples collected from individual animals that are pooled together in groups of five. Individual samples should be submitted to laboratories approved for fecal pooling and tested by an organism detection test. Pooled fecal cultures or pooled fecal PCR tests are considered an MAPDT.
  - iv) Histology of tissue—Microscopic identification of the characteristic pathological changes and of MAP organisms in tissue is a definitive test for JD. Tissue changes and bacteria can be observed in the intestinal lining and in nearby ileal, mesenteric, and ileocecal lymph nodes in infected animals. Sensitivity depends on the stage of disease, the number and type of specimens collected, and the experience and time spent examining tissues by the pathologist.
2. Screening test—Tests that do not meet the 9 CFR 80 definition of an official JD test but are used for herd classification. Screening tests are tools that have been developed to aid in determining the presence or absence of MAP within a herd. Depending on the method, screening tests may include individual animals or multiple animals in a diagnostic sample.
  - i) USDA approved ELISA—Animals found positive by ELISA tests should be considered suspect until confirmed using an OJT for low-level risk herds. ELISA tests are to be used as screening tools or to help make management decisions.

- ii) Environmental fecal sampling—Fecal material samples collected in areas where a large proportion of the herd is commingled. Samples are tested using organism detection methods in approved laboratories.



## Appendix 1: Classification Scheme for Program Score



### Johne's Herd Classification Level's

- A. Level 0 - Unmanaged risk
  - a. No actions taken towards management of Johne's risk or spread
  - b. No herd management plan in place
- B. Level 1 – Evaluated Risk
  - a. Herd management plan on file
  - b. Implementation of Best Management Practices
  - c. Clinical +/- test positive cases removed or separated from high risk group cattle
  - d. +/- Testing on high risk group cattle
- C. Level 2 – Managed Risk
  - a. Completed all requirements of Level 1 including:
    - i. Herd Management Plan
    - ii. Best Management Practices
  - b. Whole herd annual testing completed on all cattle > 2 years of age
  - c. Clinical and positive test cases removed
- D. Level 3 - Assurance
  - a. Completed all requirements of Level 2 including:
    - i. Herd management Plan
    - ii. Best Management Practices
    - iii. Whole herd annual testing on all cattle >2 yrs. Of age
    - iv. Clinical and positive cases removed
  - b. Two years since clinical or positive test case
- E. Level 4 – High Assurance
  - a. Completed all requirements of Level 3 including:
    - i. Herd management Plan
    - ii. Best Management Practices
    - iii. Whole herd annual testing on all cattle >2 yrs. Of age
    - iv. Clinical and positive cases removed
  - b. Five years since clinical or positive test case

## Appendix 2: Approved Testing Strategies for Classification

The classification system (Appendix 1) was developed based on a review of scientific literature, data analysis, and discussions by a team of experts in the fields of epidemiology, diagnostics, and cattle management systems.

An alternate testing strategy may be approved for any level as long as it meets or exceeds the testing sensitivity for the given testing level as approved by the DOL.

Level 0- No testing being completed by producer.

Level 1- Testing high risk group cattle. Testing NOT required though strongly encouraged.

- High risk group cattle include those with Johne’s compatible clinical signs and/or cattle born to infected dams.
- Testing of clinically affected animals may include ELISA, bacterial culture of fecal samples, or PCR of fecal samples.

Level 2, 3, or 4- Required annual testing on cattle greater than 2 years of age.

- Testing may include:
  - Bacterial culture of fecal samples, individual or pooled in groups up to 5.
  - Bacterial culture of fecal samples from ELISA-positive cattle, individual or pooled in groups up to 5.
  - Real-time PCR assay of fecal samples with concurrent bacterial culture of fecal samples.

Montana Veterinary Diagnostic Laboratory testing fees

Aerobic culture	\$17.60
Serology (ELISA MAP)	\$8.80 (1-100 samples)
	\$6.60 (101-500 samples)
	\$4.40 (501 or more samples)
PCR	\$34.65 (Individual sample)
	\$40.42 (pooled sample)

### Appendix 3: Appealing the Status of a Test-positive Animal

The herd will be classified based upon the initial test results. If the status of a positive animal is appealed, the herd classification may be changed based upon the discretion of the DOL. The animal must be included in the next round of program testing if it remains in the herd.

For animals found positive to a screening test, a herd owner may elect to confirm the test and/or appeal the positive result(s) as follows:

- A herd owner must submit a written statement to the DOL within 30 days of the positive results to request an appeal, and then, at his or her own expense, arrange for an accredited veterinarian to:
  - Conduct a necropsy of the animal with an official JD test on tissue and histopathology of the ileum and of the mesenteric and ileocecal lymph nodes; or
  - Conduct a full-thickness biopsy of the ileum and biopsy of the mesenteric or ileocecal lymph nodes with histopathology and an official JD test on tissues and fecal samples taken at the time of biopsy; or
  - Submit six separate, serial fecal samples from the animal, with samples collected between 30 and 45 days apart for an official JD test. All six samples must be negative for the animal to be considered a test-negative animal.
- An official JD test must be submitted by an accredited veterinarian within 45 days of notification of the screening test results.
- If the animal that was test positive to a screening test has left the herd so that no confirmation of the results can be obtained, the herd maintains its classification based upon the original herd test.
- The herd JD status will be suspended until all testing is complete. The herd will be classified at the dols discretion, based upon the test results.

## APPENDIX 4: EDUCATION

### MANURE & WASTE

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Management Goal = Reduce contact with infectious fecal material from the environment

Suggested Practices:

- Manure: Avoid build-up of manure in pastures and corrals where animals are kept, especially calving areas. This includes any areas where cows with calves at side may congregate.
- Graze low-risk animals (steers and adult cows) on contaminated pastures if necessary.
- Let pastures rest 12 months before re-using
- Avoid fertilizing pastures with manure from other herds (especially dairy herds).
- Grazing & Feeding Practices: When possible, avoid feeding cattle directly from the ground by using feed bunks and hay racks
- Graze on uncontaminated pastures
- Store hay in clean areas
- Use separate equipment for handling manure and feed
- Use clean equipment for feeding and handling cattle
- Water Sources: protect water sources from manure contamination and fence off ponds that drain contaminated pastures

### COLOSTRUM & MILK

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Management Goal = Decrease the risk of using contaminated colostrum or milk

Suggested Practices:

- Colostrum & Milk: Only use and freeze colostrum from Johne's test-negative mature animals
- Avoid pooling colostrum from multiple animals
- Udder Cleanliness: Thoroughly clean the udder and teats after assisted births and prior to collection of colostrum to avoid manure contamination

### CALVES & YOUNG STOCK

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Management Goal = Reduce the exposure and infection of susceptible young stock

Suggested Practices:

- Culling Considerations: Cull offspring of test-positive animals. Calves of test-positive animals are likely to be infected.

### ADDITIONS & HIGH-RISK ANIMALS

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Management Goal = Practice cautionary methods when introducing new animals into your herd

Suggested Practices:

- Purchasing: Ask about the Johne's status of a herd when purchasing animals. It is safer to acquire animals from a herd with an active testing program than from a herd of unknown status. Animals that are lowest risk are test-negative animals from test-negative dams.
- Use caution when purchasing bulls from a herd with an unknown Johne's status. A positive bull can expose many susceptible calves.
- Consider embryo transfer to utilize desirable genetics from a positive animal. Assure recipient females are both test-negative and are from test-negative dams.
- Quarantine: Quarantine and test purchased animals. Prevent contact between new animals and young stock until test results are known.

## BIOSECURITY

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Management Goal = Prevent and control disease with management of livestock health and the environment

Suggested Practices:

- . Environmental Management: Wherever possible, use individual calving pens, or minimize cow density.
- . The maternity and calving area should not house non-calving or sick animals, nor should it be immediately adjacent to mature animal housing areas.
- . Animal Health: Minimize the exposure of young stock to manure from adult animals.
- . Minimize exposure of livestock to other cattle and other susceptible animal species that may be infectious, such as sheep, goats and wild ruminants.
- . Assessing Risks: Ensure animals that are added to the herd come only from status-level or documented low-risk sources.

## INFECTED ANIMALS

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Management Goal = Develop a protocol for infected animals

Suggested Practices:

- . Testing: Use a test-certified diagnostic lab for all testing necessary to meet management and/or program goals.
- . Positive animals: Remove or separate all test positive animals from the herd.
- . Sell all positive animals through slaughter channels only.

### Appendix 5: Johne's Herd Health Plan template

The purpose of this herd plan is to outline appropriate actions and management practices to reduce the risk of Johne's disease within a herd and to mitigate the potential for spread of the disease through movement and sale of cattle. Signing this herd plan is voluntary, the plan is subject to review and revision, and it is not intended to represent a legal contract.

Owner Information			
Ranch Name:			
Brand(s):			
Owner Name:			
Primary contact (if different than owner)			
Physical Address:			
City, State, Zip:			
County:			
Mailing Address:			
City, State, Zip:			
Phone:	H: _____	M: _____	O: _____
Email:			

Johne's Certification Program Information			
Date of Application/Renewal:			
Program Level (1-4):			
Plan to Complete Education Component:			
Laboratory Used for Testing:			
Veterinarian:			
Veterinary Clinic:			
County:			
Phone:	H: _____	M: _____	O: _____

Herd Information			
Type of Operation:	<input type="checkbox"/> Commercial	<input type="checkbox"/> Seedstock	Other: _____
Number of cows 2 years of age and older:			

Number of bulls 2 years of age and older:	
Source of replacements:	
Bull source:	

Herd Distribution			
	Location 1	Location 2	Location 3
Location:			
Land Owner:			
Separate herd (Y/N):			
Cattle run in common (Y/N):			
Dates:			

Johne's Testing History			
Laboratory:		Laboratory:	
Case Number:		Case Number:	
Date of Positive Test:		Date of Positive Test:	
Type of Test:		Type of Test:	
Total # Positive:		Total # Positive:	
Total # Tested:		Total # Tested:	
Whole Herd Test (Y/N):		Whole Herd Test (Y/N):	
Disposition of Positives:		Disposition of Positives:	
Laboratory:		Laboratory:	
Case Number:		Case Number:	
Date of Positive Test:		Date of Positive Test:	
Type of Test:		Type of Test:	
Total # Positive:		Total # Positive:	
Total # Tested:		Total # Tested:	

Whole Herd Test (Y/N):		Whole Herd Test (Y/N):	
Disposition of Positives:		Disposition of Positives:	
Laboratory:		Laboratory:	
Case Number:		Case Number:	
Date of Positive Test:		Date of Positive Test:	
Type of Test:		Type of Test:	
Total # Positive:		Total # Positive:	
Total # Tested:		Total # Tested:	
Whole Herd Test (Y/N):		Whole Herd Test (Y/N):	
Disposition of Positives:		Disposition of Positives:	
Laboratory:		Laboratory:	
Case Number:		Case Number:	
Date of Positive Test:		Date of Positive Test:	
Type of Test:		Type of Test:	
Total # Positive:		Total # Positive:	
Total # Tested:		Total # Tested:	
Whole Herd Test (Y/N):		Whole Herd Test (Y/N):	
Disposition of Positives:		Disposition of Positives:	



I. Best Management Practices:

Check all that apply:

- Implement a biosecurity plan for your operation that identifies sources of disease risk and strategies to avoid introducing disease to your herd
- Inquire about the Johne's status of a herd when purchasing new animals; important consideration must be given to bulls. They are with cows at time that calves are highly susceptible
  - Ensure animals added to the herd come only from status-level or documented low-risk sources. Record the source and manage additions as higher risk animals unless you have evidence to the contrary
- Raise newborn animals in a clean environment
  - Keep maternity and calving areas clean, dry, and free of manure. Wherever possible, use individual calving pens, or minimize cow density. The maternity and calving area should not house non-calving or sick animals, nor should it be immediately adjacent to mature animal housing areas
  - Raise weaned replacement animals physically separate from older animals
  - Minimize the density of cow and calf pairs as much as possible
- Avoid manure contamination of feed and water sources
- Identify and remove affected (clinical and test-positive) animals
  - Segregate, test, and remove clinical suspects from the herd as soon as possible. Make recommendations to reduce the risks from official test-positive cattle by humanely euthanizing the animals or sending them to slaughter
- Maximize herd disease resistance through good nutrition and parasite control
- Know the disease status and herd health programs of all herds mixing with yours
- Work with your veterinarian to determine the Johne's status of your herd
- Make reasonable/practical attempt to keep fences in good repair to prevent accidental contact with potentially infected cattle or other species that may be infected with Johne's Disease
- All cattle should be individually identified using an identification method approved by the State of Montana
- Feed calves colostrum from an individual, identified, low-risk, test-negative cow, or a suitable quality colostrum replacer

Notes:

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II. Herd Owner/Manager Agrees To:

**Manure and Waste:**

*Management Goal = Reduce contact with infectious fecal material from the environment*

Manure:	
	Avoid buildup of manure in pastures and corrals where animals are kept, especially calving areas. This includes any areas where cows with calves at side may congregate.
	Graze low-risk animals (steers and adult cows) on contaminated pastures if necessary.
	Let pastures rest 12 months before re-using.
	Avoid fertilizing pastures with manure from other herds (especially dairy herds).
Grazing and Feeding Practices:	
	When possible, avoid feeding cattle directly from the ground by using feed bunks and hay racks.
	Graze on uncontaminated pastures.
	Store hay in clean areas.
	Use separate equipment for handling manure and feed.
	Use clean equipment for feeding and handling cattle.
Water Sources:	
	Protect water sources from manure contamination and fence off ponds that drain contaminated pastures.

**Colostrum and Milk:**

*Management Goal = Decrease the risk of using contaminated colostrum or milk*

Colostrum and Milk:	
	Only use and freeze colostrum from Johne's test-negative mature animals.
	Avoid pooling colostrum from multiple animals.
Udder Cleanliness:	
	Thoroughly clean the udder and teats after assisted births and prior to collection of colostrum to avoid manure contamination.

**Calves and Young Stock:**

*Management Goal = Reduce the exposure and infection of susceptible young stock*

Culling Considerations:	
	Cull offspring of test-positive animals. Calves of test-positive animals are likely to be infected.

**Additions and High-Risk Animals:**

*Management Goal = Practice cautionary methods when introducing new animals into your herd*

Purchasing:	
	Ask about the Johne's status of a herd when purchasing animals. It is safer to acquire animals from a herd with an active testing program than from a herd of unknown status. Animals that are lowest risk are test-negative animals from test-negative dams.
	Use caution when purchasing bulls from a herd with an unknown Johne's status. A positive bull can expose many susceptible calves.
	Consider embryo transfer to utilize desirable genetics from a positive animal. Assure recipient females are both test-negative and are from test-negative dams.
Quarantine:	
	Quarantine and test purchased animals. Prevent contact between new animals and young stock until test results are known.

**Biosecurity:**

*Management Goal = Prevent and control disease with management of livestock health and the environment*

Environmental Management:	
	Wherever possible, use individual calving pens, or minimize cow density.
	The maternity and calving area should not house non-calving or sick animals, nor should it be immediately adjacent to mature animal housing areas.
Animal Health:	
	Minimize exposure of livestock to other cattle and other susceptible animal species that may be infectious, such as sheep, goats and wild ruminants.
Assessing Risks:	
	Ensure animals that are added to the herd come only from status-level or documented low-risk sources.

**Infected Animals:**

*Management Goal = Develop a protocol for infected animals*

Testing:	
	Use a test-certified diagnostic lab for all testing necessary to meet management and/or program goals.
Positive Animals:	
	Remove or separate all test positive animals from the herd.
	Sell all test positive animals through slaughter channels only. Intended market: _____

**Additional Information:**

	Contact MDOL if any changes in contact information, herd size, cohort size, management practices, ranch operations, or grazing locations occur.
	Comply with all federal Johne's regulations as written (see page 4) if operation changes are made and herd plan is not updated.
	Promptly contact the MDOL if a commingling problem exists

III. MDOL agrees to:

- Send renewal notice to producers 2-4 months in advance
- Provide producers and their herd veterinarians with a timely review of the herd plan
- Provide educational opportunities to producers and herd veterinarians as available
- Keep the Montana Johne's Control Program current with science-based information

*This herd plan is intended to be dynamic and to be subject to review and revision. This plan will be reviewed on an annual basis or if requested by the herd owner/manager herd veterinarian or MDOL.*

*Changes in livestock management or other factors may warrant an update to the herd plan. Modifications must be agreed upon by all signing parties.*

Failure to comply with the agreed upon management practices or change in management without prior notification of MDOL may result in removal from the program.

**Herd Plan reviewed and agreed upon by:**

\_\_\_\_\_

Herd Owner

\_\_\_\_\_

Date

\_\_\_\_\_

Veterinarian

\_\_\_\_\_

Date

