

Alberta Johne's Disease Initiative

Dairy Herd Risk Assessment

Farm Name: _____

Owners Name: _____

Legal Land Description: Section _____ Township _____ Range _____ Meridian _____

or GPS Coordinates: Latitude _____ Longitude _____

Veterinarian: _____ Phone: _____

Date of on-farm risk assessment (yy mm dd):

This risk assessment (RA) must be completed by the certified herd veterinarian during a farm visit so as to observe and clarify with the herd owner the management practices actually being used on the farm. This, along with use of the risk assessment guide will assist the veterinarian in making a thorough and systematic assessment of on-farm management practices that may play a role in the entry onto, or spread within, the farm of *Mycobacterium avium* subspecies *paratuberculosis*, the cause of Johne's disease (JD).

Scoring Summary

Section 1: _____ / 90 points

Section 2: _____ / 90 points

Section 3: _____ / 50 points

Section 4: _____ / 70 points

Section 5: _____ / 30 points

Section 6: _____ / 30 points

For research purposes, please mail or fax copies of all pages of this risk assessment, addressed to: Charlotte Pickel, University of Calgary Veterinary Medicine, Room HSC 1631, 3330 Hospital Drive NW, Calgary AB T2N 4N1, phone: (403)991-7526, fax: (403)210-6693, e-mail: cspickel@ucalgary.ca

Section 1: General JD Risk Assessment

1. Date of last JD Herd RA (leave blank if this is the first RA) (yy mm dd):
2. Type of housing for milking cows? Free stall Tie stall/Stanchion Loose Housing
3. Number of: Lactating Cows: _____ Dry Cows: _____ Breeding Bulls: _____
Pre-weaned Heifers: _____ Weaned to First Calving Heifers: _____ Bull Calves: _____
4. Is this herd on DHI? Yes No If yes, record the herd DHI number _____
Has herd participated in DHI JD testing? Yes No ...in ARD JD program? Yes No
5. What access do farm visitors have to cattle of any age on the farm? Score
- 10 No restriction of any visitor access to any animal
 - 7 Visitors restricted from access to mature animals
 - 4 Visitors restricted from access to pre-weaned calves
 - 1 Visitors restricted from access to all animals OR are required to wear clean foot ware and clothing when accessing any animals
6. Have you ever had any cows in your herd that had clinical JD? Score
- 20 Yes, JD has been observed in the herd
 - 15 Don't know
 - 10 JD has never been observed in the herd **AND** testing for JD was never done
 - 5 JD never observed in the herd **BUT** some negative tests done within 5 yrs
7. Did you purchase any animals (including bulls) in the last 5 years? Score
- 20 Yes, from multiple herds or at public auction
 - 15 Yes, from a livestock show or purebred auction with known contributors
 - 10 Yes, but only one or two animals from a single herd
 - 5 Yes, from a livestock show/auction with cattle only from herds on JD Herd Status
 - 1 No
- IF YES, then:**
- 7.1 What precautions were taken to prevent JD entering the herd? Score
- 20 No precautions taken
 - 10 Seller knew about JD, indicated no JD in the herd but has never tested for JD
 - 7 Purchased animals were tested negative for JD before delivery
 - 5 Purchased animals from a herd with low risk for JD (in JD Herd Status)

8. Are any animals in this herd directly commingled with other animals by attending cattle shows? Are vehicles or equipment contaminated with manure from other cattle or species susceptible to JD/MAP? Score

- ②0 Yes, herd members attend cattle shows and/or hauled in vehicles contaminated with manure from other cattle or species susceptible to JD/MAP.
- ①5 Yes, pens are cleaned by custom manure removal operations.
- ⑤ Yes, but herd members only attend cattle shows allowing cattle from herds at lower risk for JD/MAP.
- ① No herd members attend shows of any kind and equipment used to move animals is cleaned and disinfected.

Section 1 - Total Score

Other general observations noted:

Section 2: Pre-weaned Heifers JD Risk Assessment

9. Are any calves or replacement heifers raised at a custom heifer rearing operation where calves have contact with animals from multiple farms, or contact with adult cattle or manure, etc.? Score
- ⑩ Yes, the custom calf/heifer rearing operation raises animals from multiple sources.
 - ⑦ Yes, but the custom calf/heifer rearing operation only has animals from my herd.
 - ⑤ No, all natural increase calves/heifers are raised on these premises.
10. What is the source of colostrum fed to calves? Score
- ⑩ Calves are fed colostrum pooled from more than 1 cow.
 - ⑦ Some calves may be given colostrum from an animal other than their dam.
 - ④ Calves are only given colostrum from their own mother.
 - ① All calves are only provided pasteurized colostrum and/or colostrum replacement.
11. How often are calves fed non-saleable milk? Score
- ⑩ Non-saleable milk is **always** (weekly) fed to calves.
 - ⑦ Non-saleable milk is **often** (once or twice a month) fed to calves.
 - ④ Non-saleable milk is **rarely** (once or twice a year) fed to calves.
 - ① Non-saleable milk is **never** fed to calves.
12. What are the sources of liquid diet fed to calves? Score
- ⑩ Calves fed bulk tank milk, or milk pooled from several cows.
 - ⑦ Calves fed whole milk from individual cows, meaning not pooled.
 - ④ Calves fed MR/pasteurized whole milk all the time with no exceptions for up to the past 2 years.
 - ① Calves fed MR/pasteurized whole milk all the time with no exceptions for more than the past 2 years
13. Are calves exposed to cow manure in milk or MR by contaminated feeding utensils? Score
- ⑩ Regardless of cleaning practices, manure contamination is extensive.
 - ⑦ Regardless of cleaning practices, some manure is clearly visible.
 - ④ Trace amount of manure is visible **OR** mixing utensils/buckets are washed less frequently than once a day but at least weekly.
 - ① Mixing utensils and milk buckets are visibly clean and all are washed at least daily with soap and disinfectant.

14. To what degree is calf water or feed contaminated with cow manure? Score

- ⑩ Manure contamination is extensive.
- ⑦ Manure is clearly visible in calf feeders and/or water buckets.
- ④ A scant amount of manure is visible in calf feeders and/or water buckets.
- ① All calf feed and water containers are clean with no visible manure.

15. What is the risk that pre-weaned calves may be in contact with cows, cow manure or other animals? Score

- ⑩ Calves are raised in close proximity to or indirect contact (drainage) with cows.
- ⑦ Calves are raised in group pens until weaning.
- ④ Calves are raised in individual pens but have contact through partitions.
- ① Calves are raised in individual hutches/pens with no contact through partitions.

16. What is the risk that calves may be exposed to MAP by people contaminated with cow manure? Score

- ⑩ Staff never clean their boots **and** change coveralls before feeding/handling calves.
- ⑦ Staff **sometimes** clean boots **and** change coveralls before feeding/handling calves.
- ④ Staff **always** clean boots **and sometimes** change coveralls before feeding/handling calves.
- ① Staff always, **without fail**, clean boots **and** change coveralls before feeding/handling calves.

Section 2 – Total Score

Other observations noted in pre-weaned heifers:

Section 3: Weaned to First Calving Heifers JD Risk Assessment

17. What is the risk that weaned or bred heifers may be exposed to cows, cow manure or runoff? Score

- ⑩ Heifers share pens or pasture with lactating or dry cows.
- ⑦ Heifers are housed near cows for variable periods of time with some direct (fence line) contact with cows, **AND/OR** share the same handling system, **AND/OR** are exposed to cow manure via runoff or splashing.
- ④ Heifers are housed near cows for only a short time with no direct contact or exposure to cow manure via runoff or splashing.
- ① Heifers are never housed with or near cows and have no exposure to cow manure runoff or splashing.

18. How contaminated with manure are heifer feed bunks and water troughs? Score

- ⑩ Manure build up in housing **OR** extensive contamination of mangers and water troughs, regardless of cleaning practises.
- ⑦ Manure clearly visible **OR** mangers and water troughs cleaned <1/month.
- ④ Waterers and feed bunks have a trace amount of visible manure and mangers and water troughs are cleaned more often than once a month.
- ① Waterers and feed bunks clean with no visible manure contamination and water troughs are cleaned more often than once a month.

19. Is feed equipment used to remove manure, or is left over feed from cows ever fed to heifers of any age? Score

- ⑩ Feeding equipment is used to remove manure from cows or other age groups.
- ⑦ Feeding equipment is never used to remove manure **BUT** left over feed from cows is fed to heifers less than one year of age.
- ④ Feeding equipment is never used to remove manure **BUT** left over feed from cows is fed to heifers over one year of age.
- ① Feeding equipment never used to remove manure **AND** left over feed is never fed to calves or heifers.

20. To what degree is manure contamination evident on heifers? Score

- ⑩ Manure is present above the hocks/knees **AND** is present on the flanks.
- ⑦ Manure is present on hind/forelegs up to the hocks/knees **OR** present on the flanks.
- ④ Manure is present on hind or forelegs but not above dewclaws.
- ① Heifers have no manure visible on hind legs, forelegs or flanks.

21. To what extent are heifers exposed to manure spread on forage or pasture in the same year?

Score

- ⑩ Manure is spread on pasture on which heifers graze in the same year.
- ⑦ Manure is spread on land next to pasture on which heifers graze in the same year.
- ④ Manure is spread on land from which forage is fed to heifers the same year.
- ① Manure is never spread on pasture on which heifers graze the same year, nor on land from which forage is fed to heifers the same year.

Section 3 – Total Score

Other observations noted in weaned to first calving heifers:

Section 4: Calving Area JD Risk Assessment

22. How many cows and how much cow manure is a newborn calf likely to be exposed to? Score
- ⑩ Over 50% of the time, more than one cow is in the calving pen/area.
 - ⑦ Between 25% and 50% of the time there is more than one cow in the calving pen/area.
 - ④ Less than 25% of the time there is more than one cow in the calving pen/area.
 - ① There is never more than a single cow in the calving pen/area.
23. What is the risk of oral ingestion of MAP by the calf in the calving pen/area? Is the bedding dry? (Test by placing a piece of paper towel on the bedding and leaning on it with your hand for 25 seconds.) Score
- ⑩ Visible manure covering two-thirds or more of the bedding and bedding is very wet.
 - ⑦ Visible manure covering 50% of the bedding and bedding is moderately wet.
 - ④ Visible manure covering 10% of the bedding and bedding is slightly wet.
 - ① No visible manure, new bedding has been added and bedding is dry.
24. To what degree is manure contamination evident on the cow(s) currently in the maternity area? Score
- ⑩ Manure is present above the hocks **AND** is present on the teats and udder.
 - ⑦ Manure is present on hind legs up to the hocks **OR** is present on the teats or udder.
 - ④ Manure is present on hind legs but not above dewclaws and not on teats or udder.
 - ① Cows have no manure visible on hind legs, teats or udder. Udder hair is clipped and the teats are always washed prior to collecting colostrum..
25. To what degree is the calving pen/area used for sick or lame cows? Score
- ⑩ The calving area is frequently (more than once a month) used by non-calving cows **OR** is used at any time by known MAP-positive cows.
 - ⑦ The calving area is used occasionally (once a month) by non-calving cows.
 - ④ The calving area is used rarely (once in three months) by non-calving cows.
 - ① The calving area is **NEVER, EVER** used by non-calving cows.

26. How often are calves born outside of a designated calving pen/area? Score

- ⑩ In the past year, >10% of calves were born outside the calving pen/area.
- ⑦ In the past year 6% to 10% of calves were born outside the calving pen/area.
- ④ In the past year, 1% to 5% of calves were born outside the calving pen/area.
- ① In the past year, a calf has never been born anywhere but in the calving pen/area.

27. What opportunity do newborn calves have to nurse their dam? Score

- ⑩ Over 50% of newborn calves nurse the cow, are left with the cow more than 4 hours, or the owner purposely leaves the calves to nurse.
- ⑦ Between 10% and 50% of newborn calves nurse the cow.
- ④ Less than 10% of newborn calves nurse the cow.
- ① No calves born on this farm ever nurse the cow.

28. What is the duration of exposure of the newborn calf to the cow? Score

- ⑩ Less than 10% of calves are removed from the dam within 30 minutes.
- ⑦ Between 10% and 50% are removed from the dam within 30 minutes.
- ④ Between 50% and 90% of calves are removed from the dam within 30 minutes.
- ① At least 90% of calves are removed from the dam within 30 minutes.

Section 4 – Total Score

Other observations noted in calving area:

Section 5: Dry Cow JD Risk Assessment

29. To what degree are feed bunks and waterers contaminated with manure? Score

- ⑩ There is extensive manure contamination in mangers and water troughs.
- ⑦ Manure is clearly visible **OR** mangers and water troughs are cleaned less than once a month.
- ④ Water troughs and feed bunks have a trace amount of manure visible.
- ① Water troughs and feed bunks are clean with no visible manure contamination.

30. Is feeding equipment used to remove manure **OR** is manure spread on forage crop/pasture exposed to dry cows in the same year? Score

- ⑩ Feeding equipment is used to scrape/remove manure.
- ⑦ Feeding equipment is never used to remove manure but manure is spread on pasture, **OR** cropland (or drains onto pasture) exposed to dry cows in the same year.
- ④ Feeding equipment is never used to remove manure, manure is not spread on pasture **BUT** may be spread on crop land (or drains onto pasture) exposed to dry cows in the same year.
- ① Feeding equipment is never used to remove manure **AND** manure is never spread on crop land/pasture exposed to dry cows in the same year.

31. To what degree is manure contamination evident on close up cows? Score

- ⑩ Cows have manure on the legs above the knees/hocks and on the flanks.
- ⑦ Cows have manure on the legs above the knees/hocks but not on the flanks.
- ④ Cows have manure on the fore and hind legs below the knees/hocks.
- ① Cows are clean with no manure on the legs above the fetlocks.

Section 5 – Total Score

Other observations noted in dry cows:

Section 6: Lactating Cow JD Risk Assessment

32. To what extent are housing, feed bunks and waterers contaminated with manure? Score

- ⑩ There is extensive manure contamination in mangers and water troughs.
- ⑦ Manure is clearly visible **OR** mangers and water troughs are cleaned less than once a month.
- ④ Water troughs and feed bunks have a trace amount of manure visible.
- ① Water troughs and feed bunks clean with no visible manure contamination.

33. Is feeding equipment used to remove manure or is manure spread on forage crop/pasture exposed to milking cows in the same year? Score

- ⑩ Feeding equipment is used (even occasionally) to remove scrape/remove manure.
- ⑦ Feeding equipment is never used to remove manure but manure is spread on pasture, **OR** cropland draining onto pasture, exposed to milking cows in the same year.
- ④ Feeding equipment is never used to remove manure **AND** manure is not spread on pasture **BUT** may be spread on crop land exposed to milking cows in the same year.
- ① Feeding equipment is never used to remove manure **AND** manure is never spread on crop land/pasture exposed to milking cows in the same year.

34. How clean are the cows? Score

- ⑩ Cows have manure on the legs above the knees/hocks and on the flanks.
- ⑦ Cows have manure on the legs above the knees/hocks but not on the flanks.
- ④ Cows have manure on the fore and hind legs below the knees/hocks.
- ① Cows are clean with no manure on the legs above the fetlocks.

Section 6 – Total Score

Other observations noted in lactating cows:

Alberta Johne's Disease Initiative

Dairy Herd Management Plan

Farm Name: _____

Owners Name: _____

Veterinarian: _____

Date of on-farm JD risk assessment and JD management plan (yy mm dd):

Ideally, only ONE priority best management practice (BMP) to decrease the risk of Johne's disease (JD) on the farm will be agreed to for implementation within the next year by the herd owner. It is essential that the owner is willing and able to implement it. If the owner wishes to further reduce the risk of JD, a maximum of three BMPs may be agreed upon. It is important to understand that the intent of the AJDI is to control and minimize the spread of JD, not necessarily eradicate it.

Recommendation(s) for management changes on this farm:

1.

2.

3.

Veterinarian's Signature

Owner's Signature