



Management strategies for beef producers

Things to do –

If you don't have Johne's disease - Keep it out! If you do have Johne's disease, eradicate or manage it!

Newborn calves are at greatest risk for Johne's infection. Exposure to manure from infected cows is the greatest risk to newborn calves. Although calves can become infected in utero, or by exposure to infected milk or colostrum, the single biggest risk to beef calves is ingestion of infected manure. Therefore, it makes sense to decrease exposure of calves to manure. Management changes can go a long way toward reducing calves exposure to manure.

The bacteria that causes Johne's disease can survive in water or manure for almost a year. It doesn't grow in water or manure, it just sits there waiting for a nice warm calf to ingest it. Decreasing environmental exposure to the Johne's bacteria is the major way to decrease infection.

The following are things to consider when you are trying to decrease the risk that your newborn calves may become infected with Johne's disease.

Calving

- Calving area
 - Calving area should be clean
 - Ideally, one cow per pen
 - Segregate sick or Johne's test-positive cows
 - Clean pen between cows; pen can be limed between uses
- Colostrum
 - Ideally, calves should get colostrum from their dam, and the dam should be Johne's disease test-negative
 - If calf needs extra colostrum, use low-risk colostrum
 - Low risk colostrum
 - ~ Obtained from healthy cow, negative on recent Johne's disease test
 - ~ Clean udder and teats before collecting colostrum
 - Consider using powdered commercial colostrum replacer
 - Be cautious using colostrum from dairy cows; know the status of the herd and the status of the cow
 - Do not feed pooled colostrums from dairy cows
- Udder
 - Manure-covered teats are a major source of infection
 - Keep the cows well bedded in a clean environment to keep udders clean
 - Some producers clip udders prior to calving



Clean udders help prevent the spread of infection

Water

- Any water contaminated with manure can spread infection
- Cows standing in ponds or creeks look pretty but are an excellent way to spread Johne's disease
 - Fence pond and creeks to prevent entry of cows
- Manure lagoons can harbor billions of Johne's bacteria
 - Fence or fill lagoons
- Automatic waterers or water tanks provide the best source of water for cattle
 - Clean water tanks routinely
 - Clean and disinfect any water tank with manure in it

Feed

- Do not feed grain on the ground; use tubs or bunks
- Feed calves in an area separate from cows
- Do not give manure-contaminated feed to calves
- Don't use the same buckets, machines, forks, etc., to clean pens and feed
- Do not feed uneaten or waste cow feed to calves

Grouping cows

- Be aware of disease risks when adding new cattle
- Be aware of the clinical signs of Johne's disease, including diarrhea and weight loss despite good appetite
- Johne's test-positive cows with clinical signs of disease should be culled immediately
- Do not put cows showing clinical signs of Johne's disease with cow/calf pairs
- Do not put Johne's disease fecal culture-positive cows with cow/calf pairs
- Do not put Johne's disease ELISA test-positive cows with cow/calf pairs

Pregnant Johne's positive cows with clinical disease

- Should you keep the cow and allow her to deliver the calf?
- Ask yourself....
 - Is the pregnancy really that important?
 - Is the calf really that valuable?
 - Are the genetics really that great?
- If the calf is that valuable
 - Isolate the cow
 - Rescue the newborn calf
- Isolate the cow
 - In a separate pen with NO contact with calves
 - Ideally, away from all other cattle
 - The pen should not drain toward the calves
 - Calves should be kept away from manure from this cow
- Rescue the calf
 - Remove the calf IMMEDIATELY after birth
 - Do not allow the calf to nurse from the infected dam
 - Feed the calf low-risk colostrum or commercially prepared colostrum replacer
 - Bottle feed the calf – use a high quality milk replacer
 - Remember, even if you do everything right to rescue the calf, there is still a risk that the calf will have become infected in utero
 - If the calf nurses from the cow, the risk of infection goes up dramatically

Embryo transfer recipients

- Put your valuable embryos in Johne's test-negative cows
- Do not put your valuable embryos in cull dairy cows
- Do not put your valuable embryos in cull beef cows
- Do not put your valuable embryos in cows purchased at the stock yards

This Holstein cow with weight loss and diarrhea is a poor choice for an embryo recipient.

Manure management

- Remember, all manure is suspect!
- Reduce exposure of newborns to manure
 - Avoid manure build-up in pens, corrals, and pastures where close up cows are kept
 - Calving area –
 - ~ Clean
 - ~ Low cow density
 - ~ Avoid overcrowding
- Do not spread manure on pasture or forage field to be used during the same year
- Don't pile manure where calves have access to it
- If you use a lagoon, make sure it is securely fenced
- Restrict access to streams and ponds
- Divert manure runoff from water sources

Facilities

- Improvements in facilities should be aimed at decreasing standing water and mud
- Water sources should minimize the risk of manure contamination
- Feed should be securely stored to prevent manure contamination
- Efforts should be made to avoid manure build-up

Not often considered when developing a Johne's disease control program is the emotional attachment to the animal. Culling the 4-H show heifer or farm national champion or famous ET donor when she has Johne's disease can be difficult. Prevention and control of Johne's disease takes time, commitment, money, and the ability to make hard decisions. Half-hearted attempts are doomed to fail. Prevention is always cheaper than control.

