Johne’s Disease Program Update & Regulatory Changes to Antimicrobial Access

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• Johne’s
  – What is Johne’s Disease
  – What it looks like
  – How we test for it
  – Prevention/Treatment
  – Saskatchewan Johne’s program

• Upcoming federal regulatory changes around access to veterinary antibiotics

• Note on submission of heads for BSE testing
What is Johne’s? (and why do we care)

- Bacterial - *Mycobacterium avium* ss. *paratuberculosis*, or “MAP”
- Infected animals develop chronic diarrhea, lose weight, get thin, and eventually die
- No treatment
- “Tip of the iceberg” - a herd with one obvious clinical case of Johne’s disease is likely to have 15 to 25 other animals infected
What does a “Johne’s cow” look like?

Source: http://www.smallholder.co.uk/news/13344954.NADIS_Health_Bulletin_for_South_West_England__Johnes___s_disease__Paratuberculosis_/
Normal intestinal villi

Johne’s infected intestinal villi

Source: www.johnes.org
Symptoms

Weight loss even though appetite is good, and chronic “pea soup” diarrhea are the main symptoms

Source: [www.smallholder.co.uk](http://www.smallholder.co.uk)

Source: [www.paratuberculosis.net](http://www.paratuberculosis.net)
How do animals get infected?

- Usually as a calf
- Manure
- Milk/colostrum
- In utero
- No symptoms until >2 yrs old

Source: embrunfarmvet.com
How do we diagnosis it?

• Laboratory testing
  1. Blood test (detects immune response - antibodies)
     • Problem: MAP “hides” from immune system – negative test
     • 90% of ”infected” cows develop antibodies btw. 2 and 6 years of age
  2. Fecal test (detects MAP in the manure)
     • Problem: Can go years without shedding MAP in manure, or shed intermittently – negative test
How do we prevent it?

• Prevention:
  – Be as certain as possible that animals brought into the herd are not infected
  – Avoid exposing calves to animals that may be infected e.g. community pastures
How do we get rid of it?

- Control/Eradication
  - Managed as a herd problem, not an individual cow disease
  - Test and cull (cull all test positive plus their offspring)
  - Management to minimize exposure to manure
  - Colostrum management

DIFFICULT!
Saskatchewan Johne’s Program

• Started fall of 2013
• Funded under Growing Forward 2
• Administered by the Saskatchewan Stock Growers Association
• Provides support for cow-calf producers who are interested in Johne’s prevention and control in their herds
• Ends March 2018
Saskatchewan Johne’s Program

- Funds are limited ($74,000/year)
- Apply through SSGA
- First-come, first-served
- Can apply every 2 years
- Up to 250 head/herd
Saskatchewan Johne’s Program

• Program covers the cost of
  – Laboratory test fees (100%)
  – Veterinary visit for blood collection (100%, one visit only)
  – Veterinary visit for Risk Assessment and Management Planning, or “RAMP” (up to $500)
Johne’s Program (cont’d)

• Results to date (Nov ‘13 – Mar ‘17)
  – #cattle tested: ~12,300
    • #cattle positive: ~400 (3%)
  – #herds tested: 84 (67 unique herds)
    • 15 herds tested 2x, 2 herds tested 3x
    • #herds positive: 50/67 (75%)
    • Within herd positives: up to 25%
Johne’s Program (cont’d)

• Does NOT represent overall prevalence in SK!
  – Only 9 (13%) did not suspect/know Johne’s was present
  – 7/9 (77%) were right
3x participation....

• Producer 1
  – 2013: 18 (24%)
  – 2014: 4 (5%)
  – 2016: 9 (9%)

• Producer 2
  – 2013: 1 (0.7%)
  – 2014: 0
  – 2016: 3 (1.7%)
Future of provincial Johne’s programming?
Regulatory Changes to Antibiotic Access
80% of antibiotics are used in animals

20% are used in people
<1%
CLEAN UP YOUR OWN BACKYARD
Federal changes to veterinary antimicrobial access and use
Removal of growth promotion claims
“Own-use imports”
“Active Pharmaceutical Ingredients”
ALL VETERINARY ANTIBIOTICS WILL BECOME PRESCRIPTION-ONLY!!!
Liquamycin®
LA-200®
(oxytetracycline injection)

Antibiotic

Each mL contains 200 mg of oxytetracycline base as oxytetracycline dihydrate.

For the treatment of disease in beef cattle: dairy cattle: calves, including preruminating (veal) calves; and swine
For animal use only

Net Contents: 500 mL
NADA #113-232, Approved by FDA
zoetis

Supra Sulfa® III
Antibacterial Sulfonamide Sustained Release bolus

For animal use only

Procaine Penicillin G

Calf Scour Bolus

for the control and treatment of bacterial enterocolitis disease and chronic diarrhea in beef and dairy calves
NADA #149-705, Approved by FDA

This product will require 
RX
as of January 1st, 2017

A veterinary prescription will be needed as of January 1st, 2017.
Only a veterinarian or a pharmacist can fill a prescription
Legally, a veterinary prescription requires a valid veterinary-client-patient relationship (VCPR)
A legitimate VCPR is considered to exist only if medical records of the practice contain sufficient evidence of relevant and timely interaction between the veterinarian, animal owner and animal patients.
Be Ready!

• Establish a relationship with a veterinarian
  – In advance
  – Learn what will be required in your specific situation

• Remember – it is not the veterinarian who is changing the rules, but they do need to follow them
A note on BSE testing....
You can take the head to the vet, rather than having the vet come to you
Taking heads to clinics for BSE testing....

- You must have an established relationship with the veterinarian
- The animal meets the criteria for testing - "4-D" animals (down, dying, diseased or dead)
- Heads must be transported under SRM permit
  - Most clinics have an SRM permit number that clients can use to transport SRM to their clinics.
  - "emergency" (immediate need) permits can be obtained from the CFIA by calling 1-866-788-8155