

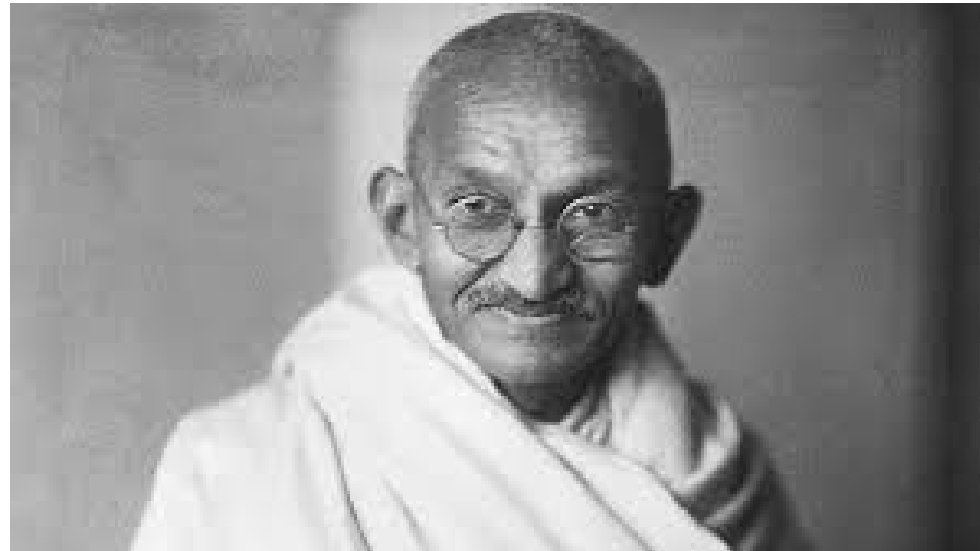
Animal Health and Welfare Best Practices

MANAGING INFORMATION FOR PROFIT IN YOUR COW HERD

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“the greatness of a nation and its moral progress can be judged by the way its animals are treated”

Gandhi

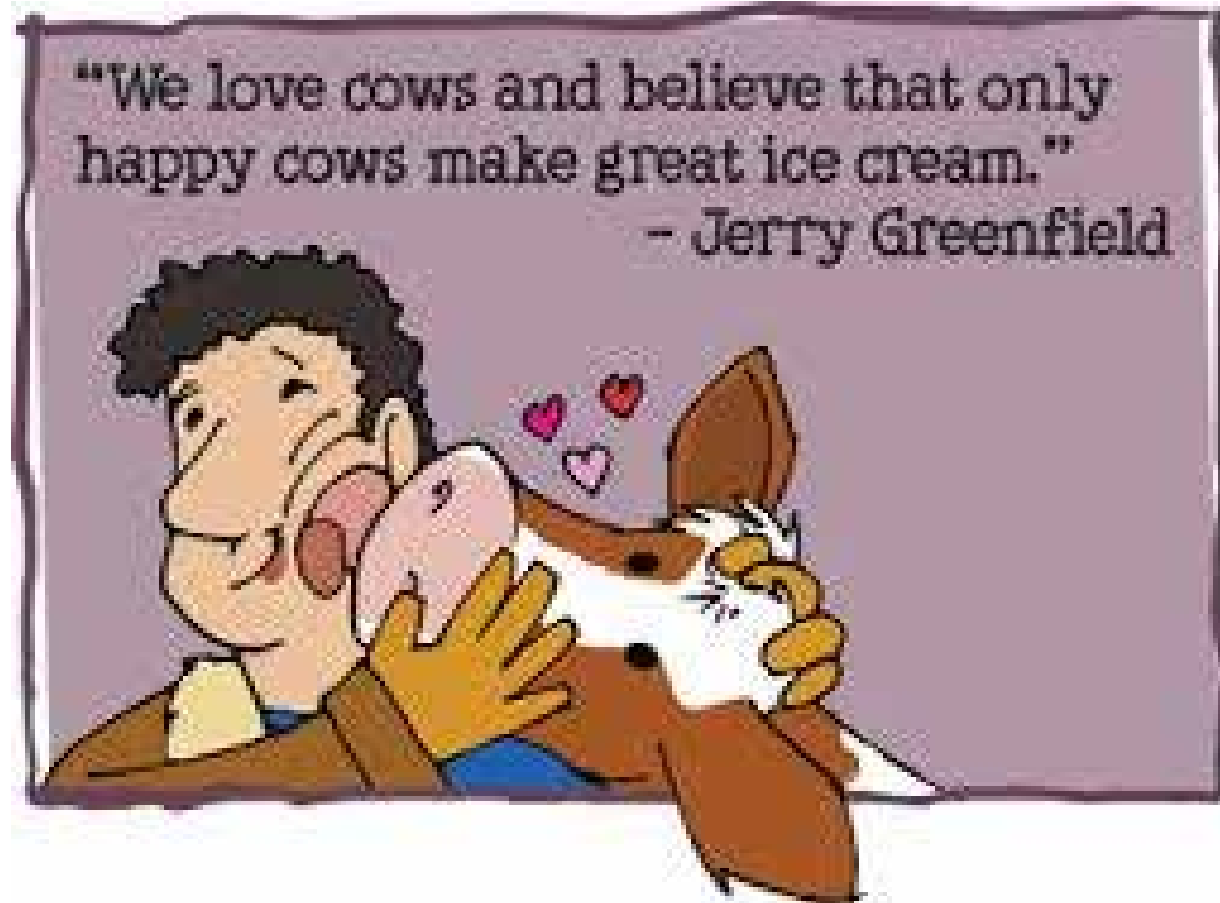


“Nature is cruel, but we don't have to be.”

Temple Grandin



Emphasizing animal health and welfare on your farm pays off in many ways



Outline

1. Vaccinations
2. Colostrum Management
3. Weaning
4. Pain Mitigation
5. Handling
6. Body Condition Scoring

Vaccinations

DO NOT:

- Half dose
- Use expired or questionable product
- Leave sitting on dash of truck (hot or freezing)
- Vaccinate anywhere other than neck

Vaccinations

DO:

- Ensure repeat injection syringes are functioning properly (same with Ivomec guns)
- Clean syringes with hot water
- Ensure person injecting knows how to hold repeater properly
- Vaccinate in neck
- Read label for proper injection technique, IM (1-1 1/2 inch needle) vs SC (3/4-1 inch)

8 Way Bacterial Vaccines

Clostridial bacteria ie. *Clostridium tetani*

- Blackleg, Bacillary hemoglobinuria (red water), tetanus, malignant edema
- Not contagious
- Spore forming bacteria, soil, drought/flood dormancy, excavation
- Closed herd does not mean there is no way of exposure
- Cheap protection
- Annually vs every 2nd year
- Covexin, Tasvax, Vision 8, Ultrachoice etc.
- Somnus

Cows → preg checking, scour vaccine administration, pre breeding

Calves → branding/ spring turnout (*banding*), weaning

Viral Vaccines

BVD type 1 and 2, IBR, PI3, BRSV

- Modified Live VS Killed (in calf vs prebreeding)
- MLV should never be given to pregnant animals who have not been vaccinated prebreeding
- Pyramid, Express, Vista, Cattlemaster, Bovishield
- Very unstable once reconstituted, ie. 2 hours
- All associated with bovine respiratory disease (BRD) complex

Combinations


Leptospirosis, Vibriosis, Mannheimia, Pasteurella, Somnus (Histophilus), Campylobacter

Bovine Viral Diarrhea

- Important cause of abortion, stillborn, weak or deformed calves
- BVD infection early term (<4 mo gestation) leads to Persistently Infected calves
- 93% of dams of PI calves will clear infection, they are acutely infected
- PI calves will shed virus infecting other calves
- BVD plays a large role in bovine respiratory disease complex
- PI animals do not necessarily look runty
- Long calving period leads to increased risk of BVD problems



Infectious Bovine Rhinotracheitis IBR

- Herpes
- Mid-Late term abortion storms 
- Red Nose
- Significant contributor to respiratory disease in stocker/
feedlot calves
- Abortion rates à 5-60% in unvaccinated herds
- IB-ARB, latent carriers

BRSV – PI 3

- Neither are associated with abortion
- Both contributors to BRD
- PI 3 – Mild clinical disease but allows for fatal secondary bacterial pneumonia
- BRSV – High morbidity, secondary bacterial pneumonia
- Typically affects 2-6 month old calves, possibly cows on pasture
- Both are endemic in cattle populations across North America



Source: www.nadis.org.uk

Viral Vaccines

- Pre-breeding VS Preg Checking
 - If we want to protect against BVD PI calves, should we not be administering prebreeding?
 - IBR abortions?
- Cows – Prebreeding, preg checking (killed vs MLV)
- Calves – Spring turnout, weaning (if retaining)

Scour Vaccines

Rota/ Corona Virus, *E. coli*, *C. perfringens*

- Two options
 - Scour Guard (Zoetis) VS Scour Bos (Novartis)
- Both are effective and worth the investment
- Intramuscular
- If you have problems one year, changing brands will not make much difference
- **Scour Guard 4kc** – last dose 2-3 weeks prior to calving, revaccinate if have not calved and 40 days from last vaccination, syringeability ++, easily freezes --
- **Scour Bos 9** – Last dose 8 weeks prior to calving (first dose 16 to 12 weeks prior to calving - preg checking?)

Fusoguard

- Footrot Vaccine
- Efficacy?
- Breeding animals – Bulls at semen testing, 3 week booster
- Having a lame bull can really mess up your calving plans
- Problem pastures?

Pinkeye Vaccine

Colostrum Management

1. Hard Pull/ Caesarean?
2. All 1st calf heifers, maybe even 2nd calf, twins, cold weather/ weak calves
3. As soon as possible after calving
4. 1 bag of commercial is only half of what is needed for full dose (2 liters)
5. Avoid off farm colostrum, store bought is safest
6. Have your vet teach you how to use an esophageal tube feeder

Worth its weight in gold, both antibodies and energy source

Pneumonia, scours, septicemia

Weaning



Source: www.rockhillsranch.com

NFACC RECOMMENDED PRACTICES

- a. Develop a weaning strategy that minimizes stress*
- b. Consider preconditioning or pre-vaccinating calves as part of your weaning strategy*
- c. Consider a low-stress weaning strategy, such as two-stage or fenceline weaning*
- d. Be prepared to wean earlier if pasture resources are limited and cow body condition scores are below target levels*

CODE OF PRACTICE FOR THE CARE AND HANDLING OF BEEF CATTLE – NFACC 2013

"Minimizes Stress"

- We refer to it as weaning, it is very stressful.
 - We do not call it "wean, vaccinate, castrate and deworm all at once"
- Bull calves should never be castrated and weaned at the same time
- Remove cows, leave calves
- Avoid vaccinating at weaning

Stress

- Stress causes the body to release Cortisol
- Cortisol decreases the immune system's ability to protect against disease
- Also decreases Immune response to vaccination

“preconditioning or pre-vaccinating”

- Start calves on silage/ hay or creep feed prior to weaning ie. 3-4 or more days
- Booster 8 way, viral vaccine and deworm 3 weeks prior
- Castrate at turn out or at calving
- Stressed animals do not respond to vaccines as well

“two-stage or fence-line weaning”



- Two stage:
 - Benefits not seen in gains or growth performance
 - Anecdotally, Benefits seen in reduction of treatments \$\$\$\$\$\$
 - \$2 a piece, 10% replacement rate
 - 4-10 days
 - Vaccinate when putting on or prior to??? 3 trips through chute?
 - Start feeding silage/hay either when first putting on or even a few days before hand

Weaning – Sorting



Source: www.quietwean.com

Pain Mitigation

“ We raise them for us; that means we owe them some respect. Nature is cruel but we don't have to be. I wouldn't want to have my guts ripped out by a lion, I'd much rather die in a slaughterhouse if it were done right”

Temple Grandin

Painful Events

1. Hard Pull, Prolapse, Caesarean
2. Foot Rot
3. Pink Eye
4. Castrating
5. Dehorning
6. Fractures/ lameness



Pain Control Options

- Banamine 24hr
- Metacam 72hr
- Oral meloxicam??
- Topical products in the future?



NFACC Swine 2014

- Swine- "As of July 1, 2016, castration performed at any age must be done with analgesics to help control post-procedure pain."



NFACC Beef 2013

Effective January 1st, 2016

Use pain control, in consultation with your veterinarian, when castrating bulls older than nine months of age.

Effective January 1st, 2018

Use pain control, in consultation with your veterinarian, when castrating bulls older than six months of age.

Handling

- Most of the handling issues on farm are a result of poor handling system design
- Slow down, tell your help to keep their head!
- Most vets would rather things take a little longer than to have animals riled up and flighty
- Cattle prods, Flight zone

Handling

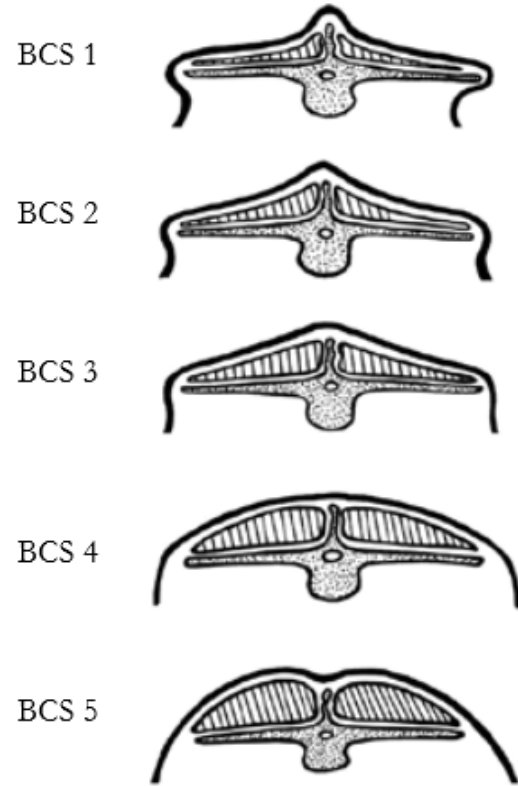
- Stress = cortisol production
- What if Big Brother was there? Consumers demanding humane practises
- Cull the fence jumpers, ask that they be pound cows at the market
 - Do not make them some one else's problem
 - What good is a cow who won't let you anywhere near her calf
- Environmental Farm Plan? Animal Welfare and Husbandry?

NFACC 2013 *REQUIREMENTS*

- *Animal handlers must be familiar with cattle behaviour (through training, experience or mentorship) and use quiet handling techniques.*
- *Electric prods must only be used to assist movement of cattle when animal or human safety is at risk or as a last resort when all other humane alternatives have failed and only when cattle have a clear path to move.*
- *Do not use electric prods repeatedly on the same animal.*
- *Do not use electric prods on the genitals, face, udder or anal areas.*
- *Do not use electric prods on calves less than three months of age that can be moved manually.*

Willful mistreatment or intentional harm of cattle is unacceptable. This includes but is not limited to: beating an animal; slamming gates on animals; allowing herd dogs to continue pushing cattle with nowhere to move; dragging or pushing cattle with machinery (unless to protect animal or human safety).

Body Condition Scoring



Stage of Production	Target BCS (out of 5)
30 days before start of breeding	2.5 - cows
	3.0 - heifers
	3.0-3.5 - bulls
Start of winter feeding program	3.0 - all females
	3.0-3.5 - bulls
Calving	2.5 - mature cows
	3.0 - bred and first-calf heifers

NFACC 2013 – Water Sources

- *Ensure that cattle have access to palatable water of adequate quality and quantity to fulfill their physiological needs.*
- *Monitor water sources, feeding habits, behaviour, performance and health on an ongoing basis and be prepared to adjust the watering program accordingly.*
- *Snow may only be used as a sole winter water source providing it is of sufficient quantity and quality to meet the animals' physiological requirements.*

Snow must not be used as a sole water source for the following cattle:

- lactating, or*
- newly-weaned, or*
- that have a body condition score of less than 2.5 out of 5, or*
- that don't have access to optimal feed resources.*

Only adequate quantities of clean, loose snow may serve as the sole water source. Monitor snow conditions on an ongoing basis.

Have a back-up water source in the event of insufficient loose snow or an interruption in water supply.

