My approach to livestock educational programming
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Cattle Production Systems
Education and outreach

- Build knowledge base

- Two distinct populations – beginner and advanced
  - Advanced groups still benefit from beginner knowledge

- Varied, accessible educational formats
  - Learning styles, multi-tasking, on-demand learning
High impact with low investment

- Long game – make it last – time in the market > timing the market
- Do not forget the foundation – written articles, in-person events, and one-on-one outreach
- Engage – stakeholders are not shy about speaking their mind usually
- Evaluate – did it work?
On-demand learning

Any learning opportunity where you DO NOT have to be at a specific location at a specific time.
Why “on-demand” learning?

- Farmers are busy – driving, milking, chores
  - Love multi-tasking
  - This is true for many different groups, think about all the multi-tasking opportunities you have in a day

- Virtual events have a place as we move forward

- Analytics are usually easier to capture
“On-demand” education platforms

Preparing to Buy a Quarter of Beef

How much meat is a quarter of a beef?

Meat from a typical quarter of a beef with a live weight of 1,100 lbs:

- 7 rib eye steaks
- 3 sirloin steaks
- 2 sirloin tip steaks
- 3 round steaks
- 15 short ribs
- 6.5 lbs. of primal brisket
- 8.5 lbs. of primal loin
- 2.5 lbs. of primal flank
- 6.5 lbs. of primal hanger
- 1.5 lbs. of primal shoulder
- 1.5 lbs. of primal plate
- 1.5 lbs. of primal shank
- 1.5 lbs. of primal short plate
- 1.5 lbs. of primal top loin
- 1.5 lbs. of primal top sirloin
- 2.5 lbs. of primal top round
- 2.5 lbs. of primal top short loin
- 2.5 lbs. of primal upperchoice

Cuts and quantity of meat will depend on the animal and processor.

How much cooler/freezer space do you need?

If weight = 100 lbs

1/4 = ~142 lbs

4.5 cu. ft. of beef meat space

8 cu. ft. of prime cooler space

What costs should you expect?

Cost of the animal is split between four parts

$ + $ = $ (processing cost)

Cattle vaccine basics

Quick facts:

- The goal of vaccination is to provide protection from disease through immune system responses.
- There are two main types of vaccines: modified live vaccines (MLVs) and killed vaccines.
- The "core" vaccinations are determined by the impact of the disease, the likelihood of exposure, and the risk of unvaccinated exposure.

Why do we give vaccines?

Vaccines are given to mitigate risk. Vaccines provide added insurance for cattle producers to protect their herds from many different diseases. The factors that warrant vaccination are:

- The likelihood of disease exposure is high, or the risk of unprotected exposure to a disease is high.
- The vaccine is effective.
- The cost of the vaccine is justified.

Goal of vaccination

The purpose of vaccinating is to protect the herd from harmful diseases for health, economic and welfare reasons. To provide protection, the immune system must develop memory. With each vaccination and booster, the goal is to provide the protection needed by triggering the immune system to recognize the disease.
Ideal goal

- **Every topic**
  - Article – Podcast – Video – Infographic

- **Challenge**
  - Podcast – weekly – fast pace
  - Articles – come together quick but need dedicated time
  - Video
  - Infographic – last one I made had 6 versions
Realistic goal

- Podcast is the fastest pace and drives content
- Articles to match – pull the team in – can’t do it alone
- Videos as seasonally appropriate
- Infographics at request or when they make the most sense
Grazing management for cattle

Quick facts
- Producers are grazing to help reduce feed costs and make unproductive cropland productive.
- You should have a grazing plan to make sure you are as efficient as possible in using your grazing forage.
- The different grazing systems include continuous grazing, rotational grazing, and intensive rotational grazing.
- Intensive rotational grazing is more productive than continuous grazing.
- Overgrazing results in decreased pasture quality and productivity.
- You should have a share-crop plan for when crops grow.

Benefits of grazing
- Grazing is a way to grow a crop (grass, such as clover and beans), trees, or use the grass and make more hay using...
Outwintering cattle

Preparing your cattle for severe winter weather

Both dairy and beef cattle are incredibly hairy. Cattle can live outside in the winter and do quite well even during severe storms if provided with a few key components.

Accommodation
One of the most critical factors for your cattle is accommodation to the weather. Cattle impacted by severe outside during the winter should remain outside to adjust to the changing climate as winter progresses. This will allow the cattle to grow a thicker hair coat in preparation for the cold.

Windbreak
A windbreak is the single most important factor for the success of your cattle during severe winter weather. A windbreak is a barrier that reduces wind velocity. It is one of the best ways to provide a safe place for your cattle. When the wind speed is over 15 mph, you can expect cattle to move away from the wind, often toward a windbreak. When a windstorm is approaching, place long strips of windbreak material around your windbreak when you know severe weather is approaching.

Feeding
In extremely cold weather, cattle require extra calories to maintain their body condition and stay warm. When the temperature is below 30 degrees Fahrenheit, you can expect to feed about 30% more than you would at temperatures above minus 30 degrees Fahrenheit. Using your feed to energize your cattle when you want them to be active is a great strategy. When a storm is approaching, please have your windbreaks ready to encourage your cattle to stay there.

Water
Other forgotten, water is a key element to the health of your cattle. During severe winter weather, water supplies can be overestimated and drastically reduced in the winter months. Without adequate water access, cattle will not eat enough and will lose body condition. If water is unavailable for long enough, cattle will attempt to seek snow, but they cannot consume enough snow for their water needs.

Avoid shifting snow
Creek bottoms, lakes, and other similar landscape features can be tempting places to use as windbreaks for your animals. The problem with using these locations is that they are the prime locations for drifting snow. High winds combined with snow can steer deep drifts that leave access issues for...
Value added service - collaboration

- Outreach “packages” for research and collaborative efforts
  - *Must include Extension Article*

- Example: Selective Dry Cow Therapy (SDCT) – CVM
  - New UMN research published 2020
    - Definitive producer take-away – key for the infographic
Selective Dry Cow Therapy (SDCT)

Selective dry cow therapy

Quick facts
- A selective dry cow therapy (SDCT) program treats some cows at dry off with an antibiotic.
- SDCT can reduce antibiotic use and costs for dairy farms.
- All cows should be treated with an internal teat sealant.
- SDCT is not appropriate for every dairy farm.
- Well-trained employees and veterinary involvement are crucial for SDCT success.

Dry cow therapy
Intermammary infusion with long-acting antibiotics at dry off (dry cow therapy) is a long-standing practice in the dairy industry and for good reason.
- Dry cow therapy (DCT) is associated with:
  - Curing existing infections at dry off.
  - Decreased risk of new infections during the dry period.
  - Reduced risk of clinical mastitis in early lactation.
- Decreased somatic cell count (SCC) in early lactation.
- The practice of blanket dry cow therapy (BDCT), treating every cow at dry off, has significantly contributed to reduced prevalence of Staphylococcus aureus and Streptococcus agalactiae.

What is selective dry cow therapy (SDCT)?
Selective dry cow therapy (SDCT), as opposed to blanket dry cow therapy (BDCT), employs a specific strategy to avoid treating every cow with antibiotics at dry off.
The package

- **Required**
  - Article → Podcast
  - Podcast → Article

- **Optional (topic usually dictates)**
  - YouTube
  - Infographic
Other on-demand learning platforms
DO NOT reinvent the wheel

- Your colleagues have great ideas and successful programs

- Don’t start from scratch – someone, somewhere has already made the mistakes, and found what works
Online courses!

12 hours of recorded presentations and demos

Discussion forums & Monthly live Q&A sessions

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Once you are registered, you will have access to all course materials for two years.

For more information about the research and extension activities at the University of Minnesota Bee Lab, within the Department of Entomology, see our website: University of Minnesota Bee Lab website. If you are interested in keeping up with the UMN Bee Lab, sign up for our newsletter.

311 people in this course!

Readings from manual

Learning assessments
Social Media

- On-demand learning

- Time killer
  - Communications need to be brief
  - This is why infographics work so well

- Facebook, Twitter, YouTube, Instagram
Facebook

18,894 people like this including 13 of your friends

19,733 people follow this
Infographics

Reach – 2.5 million people

Engagements – 267,500

Comments – 617

Shares – 20,700

Followers before about 2,000
Followers after about 4,400

Preparation to Buy a Quarter of Beef

How much meat is a quarter of a beef?

Meat from a typical quarter of a beef with a live weight of 1300 lbs:

- 7 lb eye steaks
- 6 lb bone-in steaks
- 3 sirloin steaks
- 3 sirloin tip steaks
- 3 round steaks
- 6 roasts

Cuts and quantities of meat will depend on the animal and processor.

How much cooler/freezer space do you need?

Live weight: 1,300 lbs

1/4 = ~142 lbs

4.5 cu. ft. of chest freezer space

5.5 cu. ft. of upright freezer space

What costs should you expect?

The cost of the interest in costs between four parties

Each party is responsible for industrial processing costs

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YouTube

- 2 functions
  - 1 – platform for sharing information and videos
  - 2 – home for content that would be hard to share otherwise on other platforms
Recorded webinars

- Attendance
  - 50 to 100 people
Twitter

- More personal interaction and accepted to tag other people – true networking

Kevin Dietzel - @lostlakefarmer
Lost Lake Farm LLC
lostlakefarmllc.com
Episode 67
What next?

- Travel restrictions are ending
- In person programming?
- Did we over-reach?
Word of mouth – be visible

- Get the right people excited!
- Find guests who are invested in the success of the programming
- Bring on-demand learning on the road
  - live podcast episodes
  - content from the field
Questions?
100% Extension

Deliver evidence-based resources, information, and support to MN beef and dairy producers through branded educational platforms while fostering industry stakeholder relationships, facilitating UMN research, supporting my colleagues, and promoting the UMN Extension Team.