Management Basics for Beef Markets

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Market options

- Sell weaned calves
  - Majority of the industry
  - Sold as stockers or feeders
- Sell fat cattle live or grid
  - Own feedlot
  - Retain ownership through feedout
- Freezer beef
  - Conventionally raised (grain fed)
  - Sold to consumers
- Niche markets
  - Grass fed, organic, etc.

Important note: Retaining replacement heifers should be considered as a marketing option

Themes

- Genetic selection
  - Will vary based on market targets (except fertility and soundness)
- Herd health
  - Common themes among most production systems
    - Calving management
    - Vaccination/parasite control protocols
- Nutritional management
  - Can vary dramatically based on production goals and markets
- Grazing management
  - Good grazing management is important for all production systems, but central to grass fed operations

Genetic selection

- Market option: sell weaned calves
  - Cross breed cows to take advantage of heterosis
  - Use curve-bender bulls (low BW EPD, high growth EPD)
  - If your buyer has a genetic preference, pay attention
    - i.e. premiums for black baldy calves

Herd Health

- Majority of calves are born in the spring
  - Provide a clean environment with adequate shelter
  - Scours infection usually occurs around the time of birth
    - Clinical signs show up later
  - Watch navels and be proactive in treating them

Herd Health

- Vaccinations and parasite control!!
  - Weaning + weather changes + social changes + nutritional changes = Sick Calves!
  - Get vaccine into calves early (1st dose > 30 days of age)
- Wean when weather is good
- Start on feed ASAP
- Implant suckling calves as long as you have adequate feed resources

Nutritional management

- Weaning is very stressful
  - Managing nutritional changes through weaning is important
    - Highly palatable, highly digestible, familiar feedstuffs
    - Shoot for consumption of 1%-1.5% BW (4-6 lbs/hd/day)
  - Waterers can present a challenge for some calves

Grazing management

- Increased pre-weaning growth will decrease days on feed
- Adequate pasture forages (quality and quantity) will help maximize pre-weaning growth
- Creep feeding maybe an option, if "the price is right"
- Be prepared to wean if pastures are short
  - Calves are the smallest animals on the pasture

Genetic selection

- Market option: sell fat cattle-live weight
  - Cross breeding only makes sense
  - Select cattle for growth traits
    - Pay attention to carcass traits…avoid extremes
  - If you retain replacement females, don't forget about maternal traits

Herd Health

- Calving Management
- Vaccination/parasite control strategies
  - Maybe include respiratory bacterial bacterins
- Weaning management
- Implant suckling calves if you have adequate feed resources
- Assess feed availability before implanting stockers
- Always implant feedlot cattle

Genetic selection

- Market option: sell fat cattle-grid marketing
  - Choose the grid that is available and fits your cattle
  - Select cattle to achieve grid targets
    - i.e. if CAB is your target, select cattle that will produce high quality carcasses without compromising yield
    - i.e. if Laura's Lean is your target, select cattle that will yield well as quickly as possible

Herd Health

- Calving Management
- Vaccination/parasite control strategies
  - Maybe include respiratory bacterial bacterins
- Weaning management
- Implant suckling calves if you have adequate feed resources
- Assess feed availability before implanting stockers
- Always implant feedlot cattle
  - Quality grid – allow animals sufficient time to marble

Genetic selection

- Market option: Freezer beef
  - Know your consumers' preferences and target those animals
    - Generally these will be slightly smaller framed animals
    - Carcass quality may not be highly important, but tenderness likely will be
    - Consumers may need flexibility in when they can take an animal

Herd Health

- Calving management
- Weaning management
- Vaccination/parasite control strategies
- Implants?
  - Your consumer will let you know what they want

Nutritional management

- Two categories
  - Breeding herd
    - Maintenance, growth, and lactation
    - Forage based ration
    - Target gains to accommodate development/gestation
  - Feedlot
    - Maintenance and growth
    - Feeders on full feed
      - High concentrate ration
      - Maximize growth rates without compromising health

Grazing management

- Increased pre-weaning growth will decrease days on feed
- Adequate pasture forages (quality and quantity) will help maximize pre-weaning growth
- Creep feeding maybe an option, if the feed price is right

Genetic selection

- Market option: niche market-grass fed
  - Grass fed often considered synonymous with "all natural", "hormone free", or "antibiotic free."
  - No USDA definition of "grass fed" beef
  - If market is forage fed only, target body weight & frame score will be smaller than industry average
    - Consider Lowline, miniature Hereford, Dexter, "belt buckle" cattle

Herd Health

- Calving management
  - Best to calve on pastures in mid-late spring
- Weaning management
  - Calves are often weaned at an older age (8-10 mo)
- Vaccination/parasite control strategies
  - Deworming is particularly important
    - Likely utilizing rotational grazing (higher parasite burden on pastures)
    - Energy limitations in grazed forages require minimal parasite burdens in animals for efficient growth
- Likely no implants, antibiotics, etc.

Nutritional management

- Developing animals can be particularly challenging
  - Require a highly digestible, nutrient dense diet when forbs are at poor quality or heading into dormancy
  - Haylages/silages with no grain can be helpful
    - Earless corn varieties, small grain stands harvested before heading

Grazing managment

- Critical to the success of the operation
- Need many more acres to accommodate animals retained for finishing
- Pasture renovation and plant species are important to provide adequate energy for animals to reach finish
  - High sugar grasses, earless corn varieties

Genetic selection

- Market option: niche market-organic
  - Feed availability will dictate the production system
    - Forage only, forage + grain, feedlot
  - Requires (re)certification by the USDA
    - Many small operations call themselves 'organic' in the absence of USDA certification

Herd Health

- Consult the USDA Organic List
  - Some historically unacceptable substances are now approved
    - Examples: Banamine, lidocaine, xylazine

Nutritional managment

- Historically often underfed
  - Feed resources are hard to come by and are expensive
  - As organic markets mature, more of more becomes available

Artificial Insemination

- Dramatically improve genetic quality of the herd
  - Can buy semen without buying the whole bull
  - Not 100%!
    - Have a plan for bull exposure or be prepared to deal with open cows
  - Heat detection vs estrus synchronization
    - Heat detection = work/time
    - Estrus synchronization utilizes reproductive therapeutics
      - Can be very simple or very complex
      - Not approved for use in organic production

Estrus Synchronization Protocols

- Example 1: 1 dose prostaglandin
  - Heat detect for 5 days and breed all females that come into estrus
  - After the 5th day, all cows that do not come into estrus receive an injection of prostaglandin
  - Heat detection continues for 5 days and any females that come into estrus are bred

Estrus Synchronization Protocols

- Example 2: 5 Day Co-Synch + CIDR
  - Insert a CIDR and administer a dose of GnRH
  - On day 5, the CIDR is removed and the females receive two doses of prostaglandin (AM and PM)
  - Seventy-two hours after CIDR removal, all females are bred and receive a dose of GnRH

Artificial Insemination

- If heat detecting, females should be bred approximately 12 hrs after they are seen in standing heat
  - **AM/PM Rule**: if a cow is observed to be standing in the morning, she should be bred the evening of the same day. If she is observed in estrus in the evening, she should be bred the following morning.

Artificial Insemination

- Semen is frozen and maintained in liquid nitrogen
  - Handling is critical to ensure that viability of the semen is not compromised
  - Thermal damage to semen is additive, so the more times it is exposed to damaging temperatures, the less fertile it becomes
  - If in doubt, let a professional handle the semen for you!
  - "The Guide to Handling Frozen Semen & Embryos"

Artificial Insemination

- The goal of AI is to put presumably viable semen in the uterus of a female that is or has very recently been in heat
- The reproductive tract is manipulated per rectum
- A long gun is used to traverse the bovine cervix and deposit semen into the body of the uterus
- Most AI Companies offer training opportunities for producers
  - ABS, Select Sires, Genex, etc