Health Management for Florida Herds

University of Florida
Beef Cattle Short Course 2010

Max Irsik DVM, MAB
Beef Cattle Extension Veterinarian
University of Florida CVM

UNIVERSITY OF FLORIDA
IFAS EXTENSION

Beef Quality = $$$$

What do we mean when we talk about beef quality??

Quality Added = $$$
Value Added, Price Premiums
Natural, Hormone Free, Organic, Welfare, Handling, Grass fed - $3-7/cwt
+
Age and Source Verified $35-50/hd
+
Preconditioned, Weaned, Healthy $15-25? cwt
+
Commodity cattle
Average Cattle = Average Price
–
under managed cattle
Discounted Cattle

A Cow Herd Maze

Producers comment

1) I never get enough for my calves
2) They stole them
3) I need more money
4) It does not pay to do anything to my calves
5) They brought the top of the market
6) On and on.

Producer comments

What are You Willing and Able to do as a producer to add value to your animals?

Cattle feeders thoughts

1) Why should I pay you more for your calves?
2) What have you done to make them worth more?
   - Have you added any value or are they a commodity calf!!!
3) How are they going to perform?
4) What are their genetics and background?
5) ARE THEY GOING TO GET SICK?
   - If they get sick will they
     - Recover
     - Die
     - Turn into a chronic or a realizer

Cow Calf Customer Thoughts

What they do not want
Is a calf that:
Has had no Vaccinations
Is not castrated
Poor genetic quality
Does not fit
their production schedule.

Producer Considerations
Herd Health

Three Common Questions from Cow calf Producers.

1. What should I process calves with?
2. When Should I process my calves?
3. How often should I process calves?

Considerations when making decisions regarding immunization strategies

1) Nature of the disease threat
   - Is the disease agent broadly disseminated throughout an animal population
   - Probability of disease exposure
2) Health and economic risks of developing disease
3) The effectiveness, safety and availability of approved vaccines
4) Total costs and feasibility of immunization.

Vaccines and Levels of Protection

1) Prevention of Infection - 98% efficacy level
2) Prevention of Disease - 90% efficacy
   - Can be infected but will show no disease clinical signs
3) Aids in prevention of disease - 75-80% efficacy
   - Where a lot of viral vaccines are at
4) Aids in disease control -65%
5) Stop shedding etc - <60% efficacy

Considerations when making decisions regarding immunization strategies

All these considerations must be weighed by both the producer and their veterinarian when making vaccine or immunization recommendations

Marking & Branding
3-4 Months of Age
1st processing

Calves

1) Viral vaccinations IBR, BVD, PI3, BRSV
   - MLV if cows have been vaccinated in the past otherwise a killed vaccine may be more appropriate
   - Intranasal would work to prime immune system.
2) Clostridial vaccinations (7-8 way)
3) Castrate and Dehorn calves (earlier the better) less stress

Marking & Branding
3-4 Months of Age
1st processing

Calves

1) Identification
   - Source and age
   - tags EID and a bangle tag to cross reference
2) de-worm calves (25 lbs)
3) ***Records***

Optional Procedures

1) Implant calves (not replacement heifers)
   - Plane of nutrition very important
   - Consider marketing plan for the calves
     - EU market, natural, hormone free etc.
2) Insecticides for fly control
   - Sprays, pour-on, tags, mineral with insecticide,
3) Test animals for PI (BVD) ???
4) Intranasal BRSV is on the horizon
   - Very efficacious

Other Consideration Regarding Calf Vaccination Programs

1) Beef animal stress & immune suppression
   - takes 3 wks for the immune system to recover
   - 5 wks for a dairy animal
2) Colostral immunity
   - Do not vaccinate a calf prior to 1 wk of age
   - Day 1 of life with a intranasal is okay but then immune system declines and days 3 and 4 it is at a low and is back to "normal" by a week of age.
     - Able to mount a more efficacious immune response.

Other Considerations

1) To stimulate peak colostral antibody vaccinate a pregnant cow 8wks prior to calving.
2) Adequate colostrum in a beef animal is very important for that animal to meet its genetic potential
   - Health as a calf,
   - gain, carcass quality,
     - ADG in a feed yard will all be decreased if animal does not receive adequate colostrum

Other Considerations

1) Should not give a Pasteurella with the first viral vaccine (especially a MLV) – renders the Pasteurella ineffective as does the clostridia vaccine
2) Watch environmental temp when working calves
   - Immune suppression if ambient temp is too high.
   - Ideal is <85 °F
     - Immune system inhibition with macrophages and neutrophils or antigen presentation
     - Night time lows below 75°F allows animal to get body temp back to normal

Second Calf Processing

1) 2-3 wks pre weaning
2) At weaning
3) Post weaning
4) Not done
5) After calves are shipped to their destination
6) A Lot depends on the producer logistics and how cattle are managed

2nd Processing

1) Revaccinate - viral vaccinations (MLV)
   - IBR, BVD, PI3, BRSV
2) Clostridial revaccinate (4 or 7 way)
3) castrate / dehorn (prefer earlier)
4) De-wormer
5) If you are going to administer a Pasteurella vaccine give at second processing and will be effective
6) Tag steers and heifers for simpler sorting at weaning (weight saving less stress)
   - depends on management and facilities
7) ***Records***

The Most Important Management Consideration

1) ***Records***
   - vaccine(s) type
   - de-wormers
   - serial numbers for all products
   - routes of administration (ROA)
     - IM, SC, oral, topical
   - location of administration
   - dosages ml/cwt, ml/hd
   - surgical procedures
     - castration, dehorning,

Group Processing/Treatment Map

Name/Ranch Two Mule Cattle Co Premise # 1209RT2

Address 7301 SE 45 Street Phone # 374-0955

City Gainesville State Fl Zip 32610

Group/Description: Spring steer calves ID/Brand: /5 RH , RFID (5)

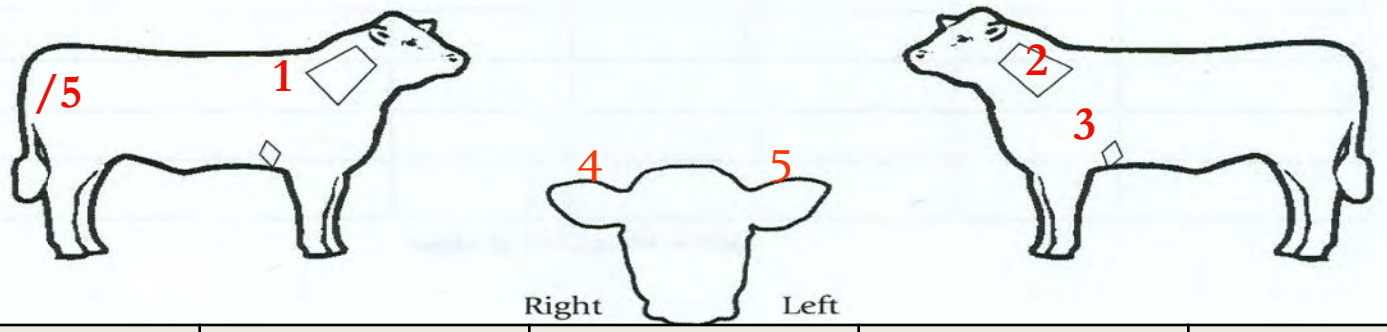
Processing Date: 11-1-09 Calving Season Date 1-1-09/4-1-09 Pen/Pasture # 14

Class: S / H / Bulls / Cows steers Age: 11 mo Weight: 650 Hd processed: 45

Other Management: Castrate _____ Dehorn _____ Other √ Viral √ Crew: Ranch

Booster/Reprocess Date: 11-15-05

When possible select SQ products and never give injection in the rear leg or top butt.
Indicate site of treatment with the corresponding # from table.



products	date	ROA / dosage	Expiration date	Withdrawal date
Bovishied 4	5-12-08	2ml SC (1)	5-12-2009	21 days
Ralgro	5-12-2008	(4)	12-12-2014	0
Dectomax	5-12-2008	8ml (2)	4-15-2009	45 days

GROUP PROCESSING/TREATMENT MAP

Name/Ranch _____ Premise # _____

Address _____ Phone # _____

City _____ State _____ Zip _____

Group/Description: _____ ID/Brand: _____

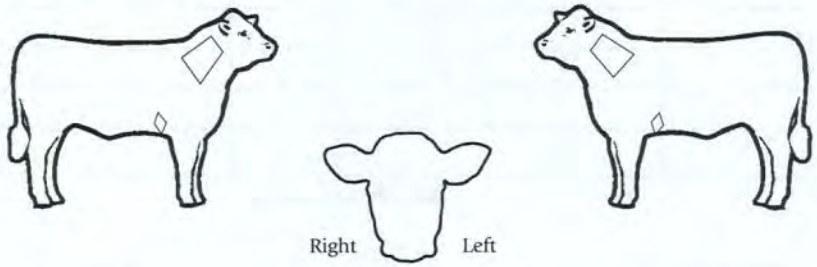
Processing Date: _____ Calving Season Date: _____ Pen/Pasture #:_____

Class: S / H / Bulls / Cows _____ Age: _____ Weight: _____ Hd processed: _____

Other Management: Castrate _____ Dehorn _____ Other _____ Crew: _____

Booster/Reprocess Date: _____

When possible select SQ products and never give injection in the rear leg or top butt.
Indicate site of treatment with the corresponding # from table.



Site #	Product and Company	Lot or Serial #	Exp Date	ROA*	Dose	Booster Date	Withdrawal Date
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							

*ROA - Route of Administration (SQ, IM, IV, IN, topical, oral)

Soonest date this group of animals can be sold/marketed_____

Comments: _____

Group Processing Record

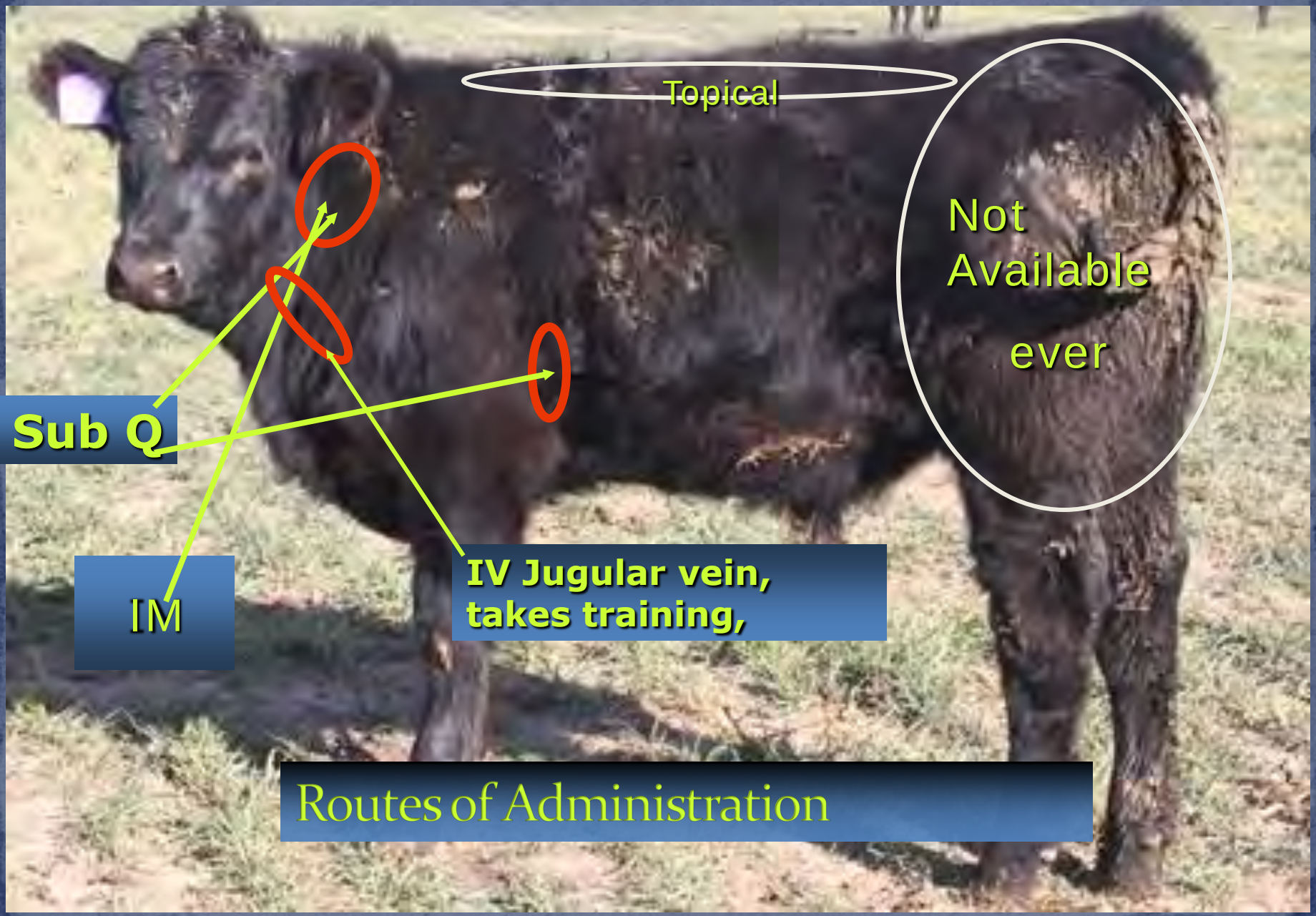
Fill out whenever you process a group of cattle.

1. **First working**
2. **Preg check**
3. **Mass medication**
4. **Bangs vaccinate Heifers**

Individual Treatment Record

TWO MULE CATTLE COMPANY						SPRING CALVES (2009)					
I.D.	Date	Weight	Temp	Diagnosis	Product Treatment	Lot or Serial #	ROA	Dose	Treatment Location	Date of Withdrawal	Initials of Processor

*ROA – Route of Administration ie (SQ, IM, IV, IN, topical, oral)



Routes of Administration

Preweaning program

1) Imply that th[illegible]tion of surgical procedures, [illegible]zations while nursing the
   - Implants n[illegible]
   - May beco[illegible]lebate
     - How cal[illegible]
     - How the[illegible]

It is part of the animal welfare debate.

Preconditioning program

1) Broader Program which Encompasses
   - Immunizations,
   - Surgical procedures
     - Castration
     - Dehorning
   - Optimal nutrition
   - Parasite control
     - Internal and external
   - How are calves weaned on farm of origin
     - Weaned on the truck
     - Fence line
     - Penned and isolated (45 days)
   - Trained to eat milled feed
   - Familiar with automatic waters or tanks
   - Is part of the Animal Welfare Debate
     - Quality assurance

Perception from Producers Involved in Vertical Marketing Ingredients
Why add value

1) Earn premiums
2) Quality improvement
3) Source of consistent quality cattle
4) Source of High quality cattle
5) Good match with an alliance partner's marketing and management skill.

Raper, Black, Hilker, American Agricultural Economics Annual mtg. July 2008

Replacement Heifers

Replacement Heifer Recommendations

1) Vaccinations
   - IBR, BVD, PI3, BRSV Modified Live Virus
     - 2 x **prior to breeding**
     - Annual booster as a breeding female
     - Duration of immunity is ?????
   - Clostridial vaccination (black leg) (7 way) 2x prior to breeding
   - Brucellosis before one year of age, preferably ~ 1 month post weaning

Replacement Heifer Considerations

- Lepto / Vibrio
  - 2 x (30 days apart)
  - Annual booster once they enter the breeding herd
  - 30-60 days prior to breeding season
  - Vaccine has a 6 mo duration
  - Important to give a L hardjo bovis
  - Give as early as possible to prevent chronic infections

Replacement Heifer Considerations

- Trichomoniasis
  - 2 x (30 days apart)
  - 30-60 days prior to breeding season
  - Annual booster
- Individual Identification
- Test for PI
  - Optional, is it a herd problem, if not just monitor herd.

Replacement Heifer goals

1) Goal is to prepare them to
   - Develop and reach puberty at an acceptable age
     - Nutrition extremely important
   - Become Pregnant early in the breeding season
   - Minimize dystocia
   - Minimal health concerns
     - Reproductive issues
     - Once pregnant remain pregnant
     - Deliver a health and viable calf
       - Rear and wean a health calf that is economically viable,
         - Minimal loss or earned a positive return at weaning.
2) Become pregnant
   - within 60-90 days in the second breeding season
3) Genetically and phenotypically superior to their mother!!!

Cow Health Protocols

Health Consideration for Cow

1) Vaccinations
   - Viral vaccinations IBR, BVD, PI3, BRSV
   - As recommended by veterinarian MLV vs. Killed
     - (annual vaccination)
     - Dependent somewhat on how cows vaccinated during heifer development phase

Cow Health Considerations

- Vaccinations
  - Lepto and Vibrio –
    - annual revaccination
      - (30 days prior to breeding)
    - often done at pregnancy check time
      1. Duration of immunity is ???
    - (best time is prebreeding)
    - Good vaccines
      - <u>vaccinate bulls and cows!!!</u>

Cow Health Considerations

- Trichomoniasis –
  - annual revaccination (30 days)
  - (best is prebreeding)
  - Causes early embryonic abortions
  - Fair vaccine
  - Not for use in bulls
    - No efficacy

Health Considerations for Cow

- Clostridia vaccination
  - Label recommends an annual booster
    - Clostridia Haemolyticum semi-annual vaccination
- Calf scours
  - Optional
  - Only if you have problems
  - There are issues associated with these
    - (These vaccines are generally recommended to be given close to calving
    - E-Coli
    - Clostridial Perfringens C&D
    - Rota and Corona virus

Cow Health Considerations

2. External and Internal parasite control as recommended by veterinarian
   - Spring / summer / fall (intestinal parasites worms)
   - Late fall or early winter flukes
     - Adults vs immature stages
     - Determine if you have a fluke problem within your herd.
     - Curatrem, or Valbazen
3. Cattle Handling Very Important !!!!!!!!!!
   - Limiting stress
   - Respond to vaccinations
   - Fetal losses

Goal for a cow

1) Become pregnant every year
2) Wean a economically viable calf every year
3) Production cycle is 365 days
4) Have a reasonable longevity
5) Meet ranch resources
   - Phenotype
6) Ease of handling
   - Don't tear stuff up
7) Have value as a cull animal when leaving the herd

Bull Health

1) Health program during development
   - Viral vaccines (IBR) (BVC)(PI3) (BRSV)
   - Lepto /vibrio (hardjo bovis)
     - Give 2x dose will clear a vibrio infection but not lepto
     - Bull infected prior to sexual maturity with Lepto is permanently infected regardless of the antibody given to try and treat the infection
   - Clostridial (8 way)
2) BSE exam prior to turn out and annually
3) Trichomoniasis testing
4) Structural soundness

Bull Program

1) Genetics
   - EPD
   - Balanced
   - Match for your ranch resources
   - Producing the replacements for herd
     - Maternal traits very imortant
2) Source
   - Reputable breeder
   - No sale barn bulls
     - Should be terminal animals
   - Utilize virgin bulls in herd
     - Biosecurity and disease prevention
   - Do not borrow from neighbor
   - Liabilites associated with these animals
     - Intro of disease into a herd.

Goals for bull (just a few)

1) Remain sound
2) Settle cows
3) Is not a bio-security risk
   - Origin
   - Health history
4) Easy to handle
   - Temperament of calves important
   - Don't tear stuff up
5) Sire calves which have value in the beef production chain
   - As calves
   - Feeder cattle
   - Replacement heifers

10 herd recommendations

1. Individually identify the cows.
2. Record calving information (date and weight)
3. When you process the calves for the first time, put a unique number tag in each of them as well.
4. Obtain an individual weaning weight.
5. You can put the entire herd on a level playing field by adjusting their calves' weaning weights to a constant 205 days of age and indexing each against the average of the group.

{(birth wt – weaning wt)/age at weaning (days)}*205 + birth wt = adj 205 wt.

10 Herd Recommendations

6. Calculate / develop herd benchmarks.
    1. Weaning wt.
    2. Pregnancy % (based on exposed females)
    3. Weaning % (based on exposed females)
7. Develop a comprehensive herd health program with your veterinarian.
8. Define EPD criteria for all bulls.
9. Get a "snapshot" of the product you are producing by feeding or getting performance information after cattle are finished and obtain carcass information.
10. Keep Records and analyze the data in consult with your herd veterinarian

Questions