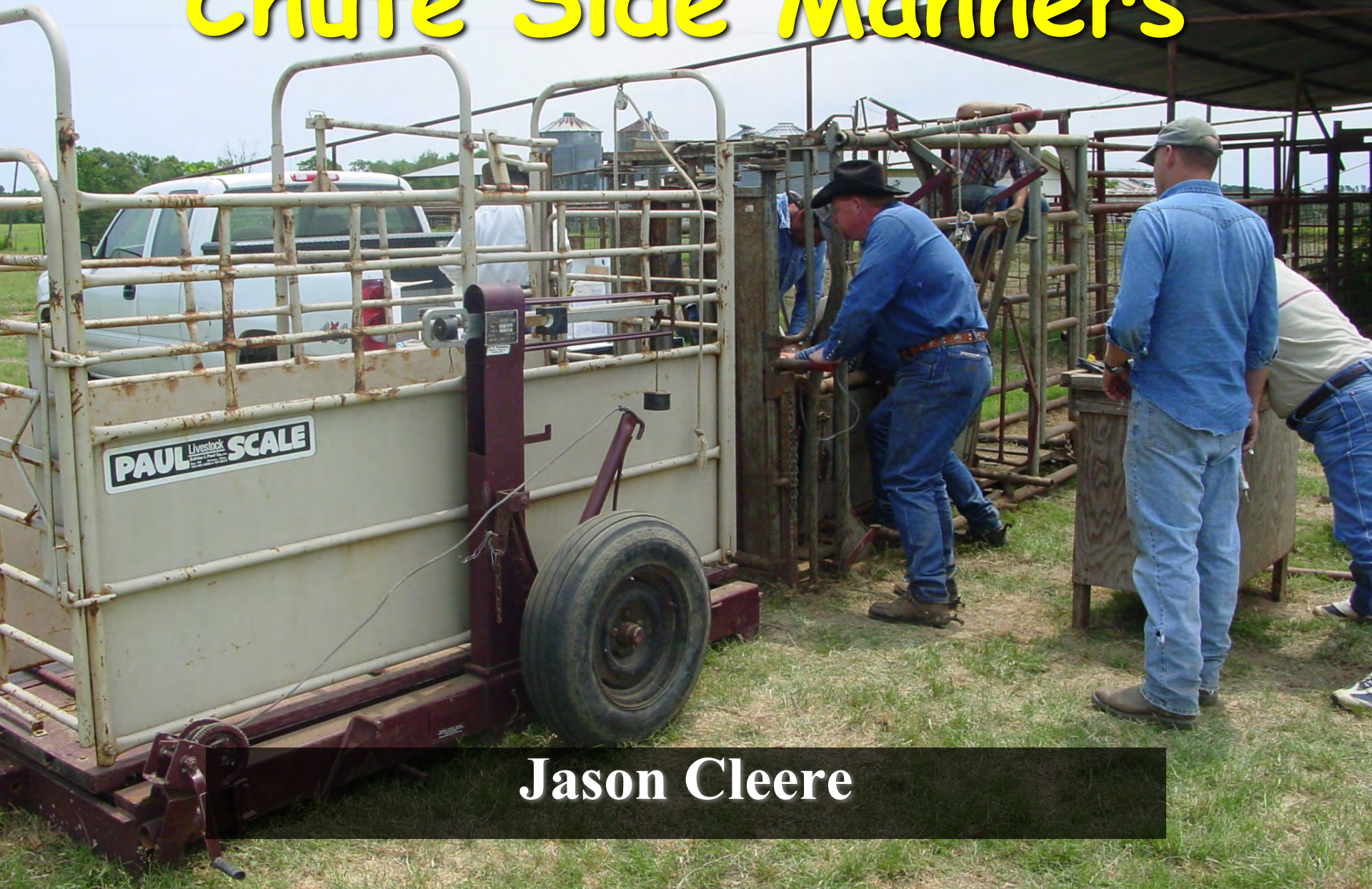
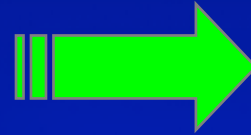


Chute Side Manners



Jason Cleere

Beef Quality Assurance



From the Pasture to the Plate....

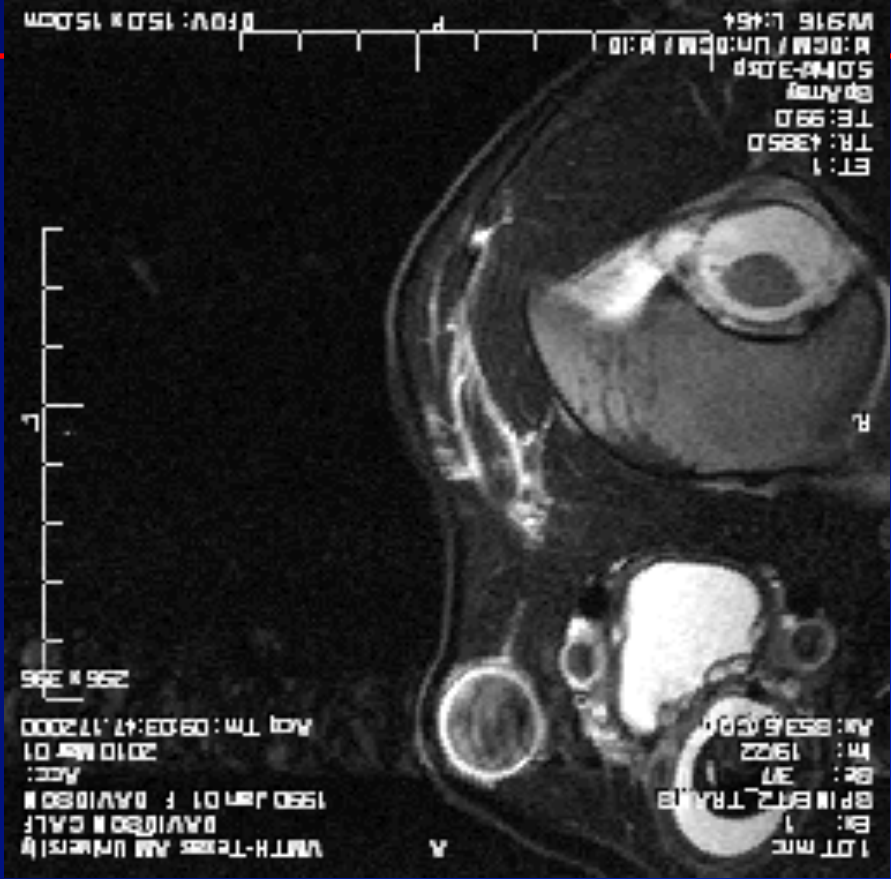
To maintain and improve consumer confidence, the Beef Industry must ensure that beef is...

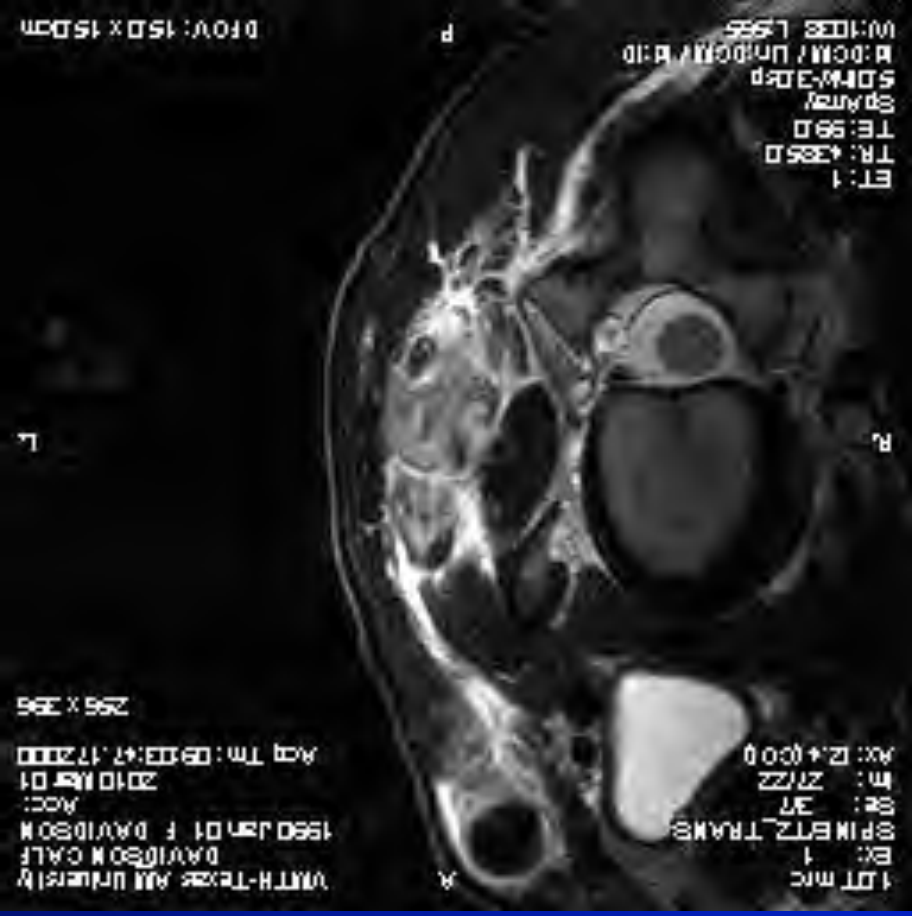
- Safe
- Of desirable Quality



Also, cattle must be handled and managed properly.















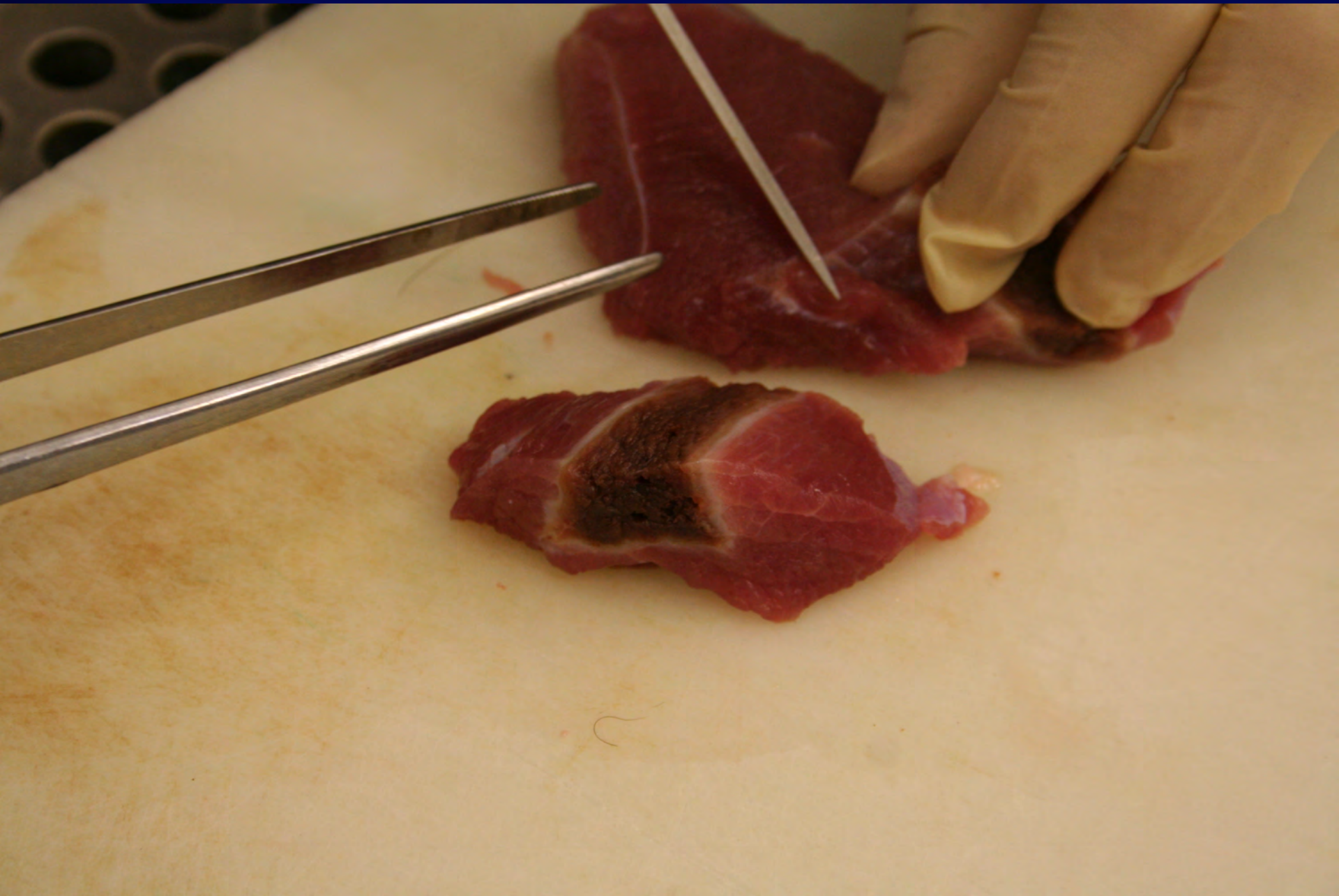










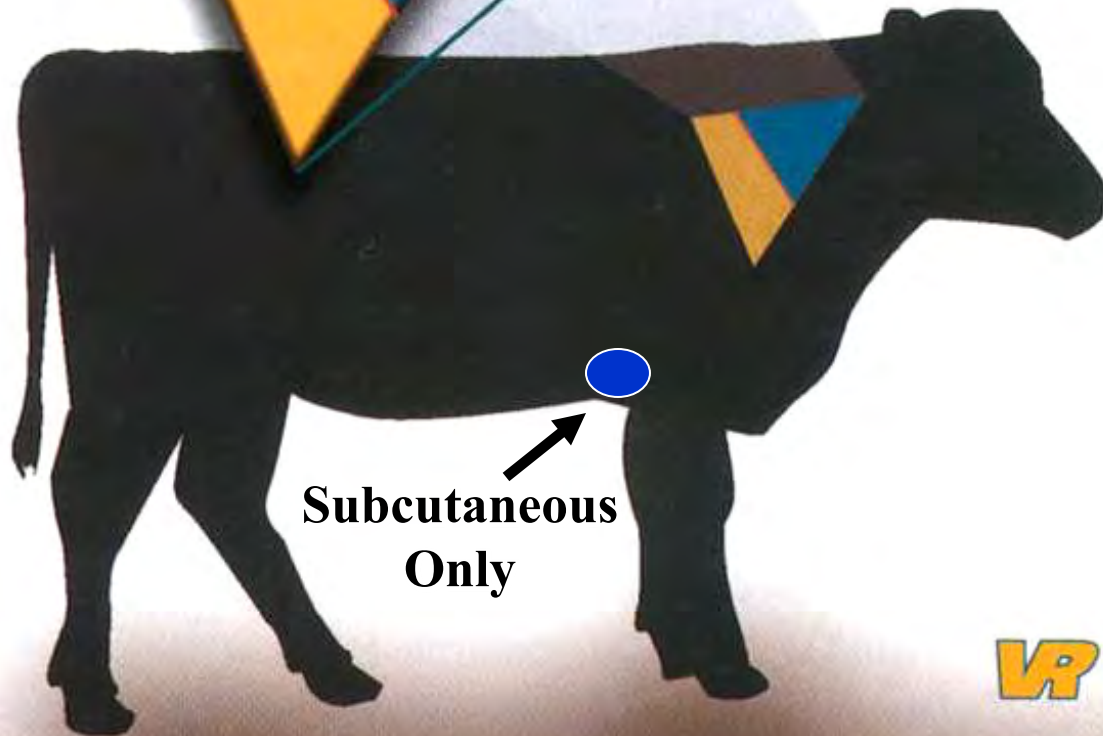




New Injection Zone (Blue)

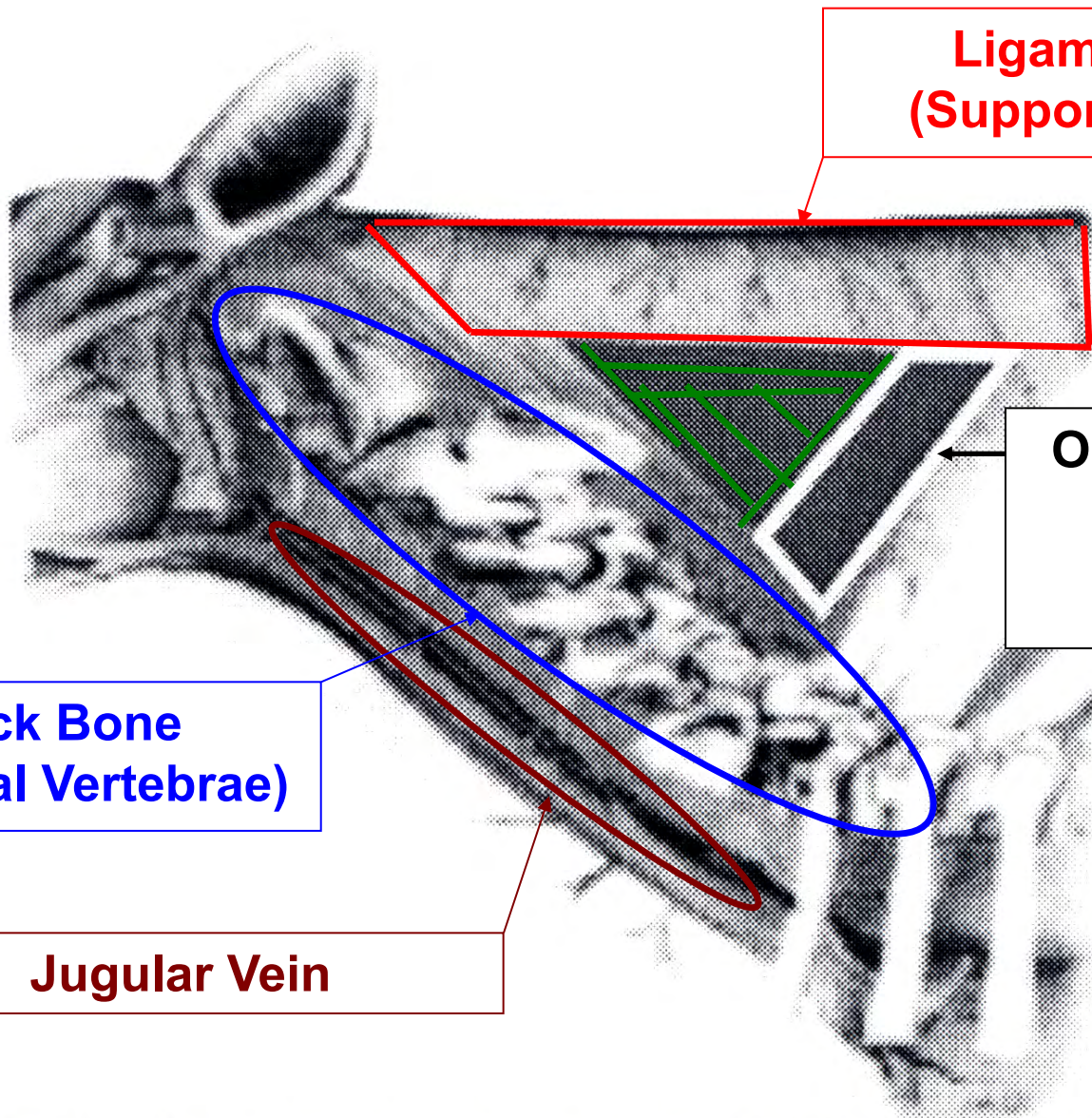


Previous Zone



Subcutaneous
Only





**Ligament nuche
(Supports the neck)**

**One hand's width
in front of the
shoulder**

**Neck Bone
(Cervical Vertebrae)**

Jugular Vein

Outlined area recommended by the NCBA BQA Task Force to be eliminated for injections.

Methods of Administering Health Products

- 1) Topical
- 2) Oral
- 3) Intranasal
- 4) Subcutaneous
- 5) Intramuscular

Least Invasive to Muscle Tissue



Most Invasive to Muscle Tissue

What needle size should I use?

Route of Administration

		SQ (1/2 to 1 inch needle)			IV (1 1/2 inch needle)			IM (1 to 1 1/2 inch needle)		
Viscosity of Injectable										
	< 300 lbs.	300-700 lbs.	> 700 lbs.	< 300 lbs.	300-700 lbs.	> 700 lbs.	< 300 lbs.	300-700 lbs.	> 700 lbs.	
Thin Liquids Example: Saline	18 gauge	18-16 gauge	16 gauge	18-16 gauge	16 gauge	16-14 gauge	20-18 gauge	18-16 gauge	18-16 gauge	
Thick Liquids Example: Oxytetracycline	18-16 gauge	18-16 gauge	16 gauge	16 gauge	16-14 gauge	16-14 gauge	18 gauge	16 gauge	16 gauge	

Select the needle to fit the cattle size.

Use the smallest practical size of needle you can, without bending it.

When should I change needles?

- Change your needles every 10 head
 - Decrease chances of breaking needles
 - Less tissue damage
 - More efficient

Properly space injections?

- Interactions between animal health products are possible
 - 4 inches between injection sites in calves and yearlings
 - 3 inches between injection sites in cows and bulls
 - use both sides of the neck

How much of a product can we give in one location?

- Never exceed 10 cc in any one location



Syringes



Vaccination Technique

- Do not use non-sterile syringes or needles
- Do not sterilize needles and syringes with disinfectants



Vaccination Technique

- Do not use lubricants
- Use the first draw of vaccine to lubricate the syringe



Animal treatment records

GROUP PROCESSING/TREATMENT MAP

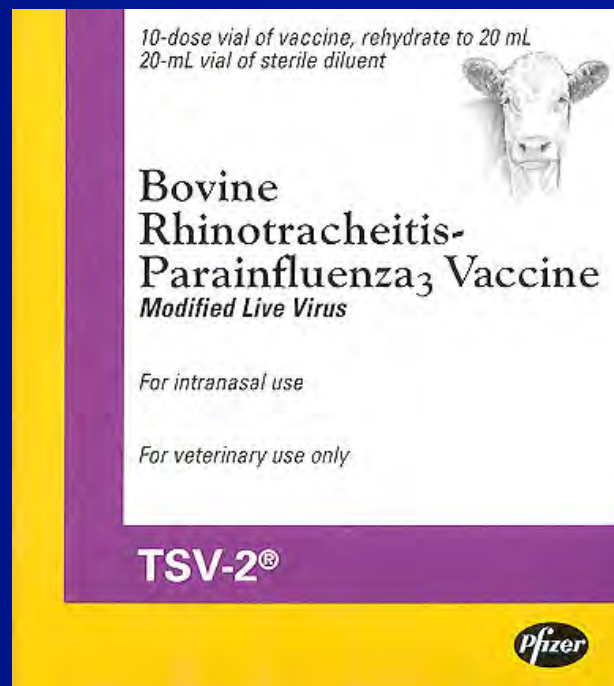
When possible select SQ products and never give injection in the rear leg or top butt.

Date: 8/07/01 Time: 7 am Number of Head: 65
 In Weight (average/variation): 330 / 300-360 Breed: cross
 Sex: S, H, Bulls, mixed ID: Right Ear of Left Ear/Group Number: 2



Product	Lot or Serial#	Company	Withdrawal Date	Route Admin	Dose	Booster Date	Crew Initials
1. Vision 7	188094	Intervet	8/28/01	SQ	2 ml	8/28	TAT
2. Ralgro	9H33	Schering	---	SQ	36 mg	---	TAT
3. Ivomec	JBJ007	Merck	9/24/01	Topical	15 ml	---	TAT
4. C Master 4	A906842B	Pfizer	8/28/01	IM	2 ml	8/28	TAT
5. Lepto-5	1497-2112	Merial	8/28/01	IM	2 ml	8/28	TAT
6.							

Handling Vaccines



Keep it cool and out of the sun...
...but don't let it freeze!!



Keep it cool and out of the sun...



Keep it cool and out of the sun...



Vaccination Technique

- **Always follow the label**
 - Timing of vaccination
 - Route of administration
 - Improper dosage
 - 2 VS. 5 CC

INDICATIONS: For the vaccination of healthy cattle against infectious bovine rhinotracheitis, bovine virus diarrhea, parainfluenza 3, and respiratory syncytial virus.

DOSAGE: Aseptically rehydrate the lyophilized vaccine with the accompanying liquid diluent and inject 2 ml (1 dose) intramuscularly; for primary vaccination, revaccinate with a second 2 ml dose 2 to 4 weeks later. Calves vaccinated under 3 months of age should be revaccinated at 4 to 6 months or weaning. Revaccinate with a single 2 ml dose annually or prior to the time of stress or exposure.

PRECAUTIONS: Store at 2-7°C (35-45°F). Do not vaccinate pregnant cows or calves nursing pregnant cows. Do not vaccinate within 21 days of slaughter. Use entire contents when first opened. Burn this container and all unused contents. Contains gentamicin and a fungistat as preservatives. In case of anaphylaxis, administer epinephrine.

MERIAL, INC.
Athens, GA 30601 USA
U.S. Vet. Lic. No. 298
List 2687

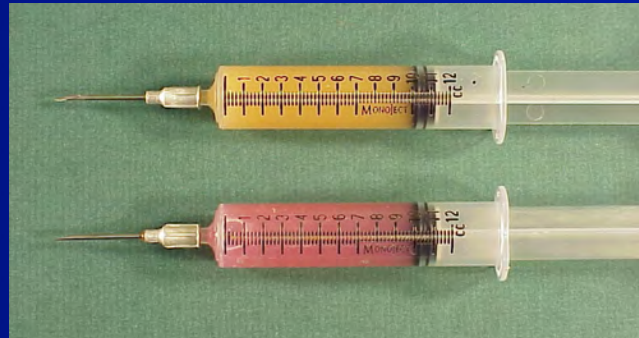
FUSION is a registered trademark of MERIAL

Mixing MLV vaccines



Vaccination Technique

- Always label your syringes to avoid mixing products



Management Practices





Pounds of Calf

“Growth Implants”

- Utilize growth promoting implants to add additional pounds of weaning weight
 - Implanted calves will be ~10-20 lbs heavier at weaning
 - \$15-\$30 in extra value for ~\$1.25 in implant cost

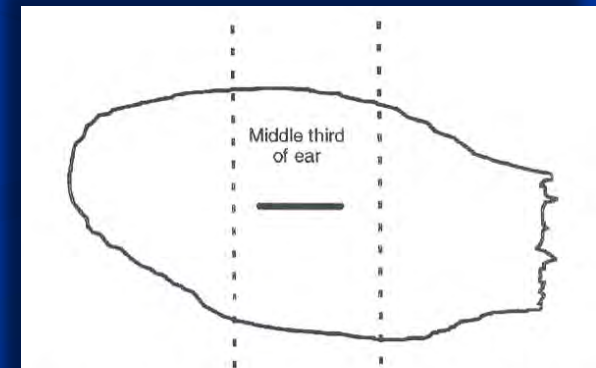


Figure 1. Proper implant placement on the backside of the ear.

Branding



Management Practices

- Dehorning
- De-worming
- Fly Control
- Identification and data management
 - Source Verified
 - Age Verified
 - Process Verified

Cattle Diseases

- Sudden Death (Clostridium) bacteria
 - Chauvoei (Blackleg)
 - Septicum (Malignant edema)
 - Novyi (Black disease)
 - Sordelli (Gas gangrene)
 - Perfringens Type C & D (Enterotoxemia and enteritis) with some protection for Type B
 - Haemolyticum (Bacillary hemoglobinuria – Red water)
 - Tetani (Tetanus)
- Anthrax
 - (dry, calcareous soils)
- Pneumonia
 - Haemophilus somnus
 - Pasturella haemolytica (Mannheimia)
 - Leukotoxoid
- Scours
 - coronavirus, rotavirus, K99 *E. coli* bacteria or *Clostridium perfringens* Type C.
- Reproductive*
 - Brucellosis or Bang's (*Brucella abortus*) Bacteria Late abortion
 - Leptospira (Leptospirosis) Bacteria Late abortion Oil based best
 - Pomona, Hardjo (Hardjo-Bovis), Grippotyphosa, Canicola, Ictero-haemorrhagiae
 - Campylobacter fetus (Vibrio) Bacteria Early abortion
 - Neospora caninum
 - Tritrichomonas foetus (Trich) Protozoa Early abortion (Test bulls) Repeat breeders Vaccine?
- Respiratory (viral)
 - Infectious bovine rhinotracheitis (IBR)* Late abortion
 - Bovine virus diarrhea (BVD Type 1 and 2)* (Abortion any stage)
 - Para influenza Type 3 (PI3)
 - Bovine respiratory syncytial virus (BRSV)
- Others
 - Pinkeye (*Moraxella bovis*)
 - Warts

Work with Your Veterinarian

- Need to have a preventative herd health plan
- Need a valid veterinary client patient relationship
- Document vaccinations, parasite control and other treatments



Valid Client Patient Relationship

- A veterinarian is an extra pair of eyes and hands.
- Usually they have seen a lot of different operations and problems.
- Best source of information of what to vaccinate and treat for and with.
- Develop a herd health management plan and treatment protocol.



Herd Health Plan

- Avoid diseases and parasites by controlling their access to cattle
- Biosecurity
 - Visitors
 - New cattle
 - Stray cattle
- Cattle and pasture management



Calves

- At 3 months of age:
 - Clostridial 7 or 8 way (8th way is for tetanus or redwater)
 - Revaccinate at weaning
 - Leptospirosis (5 way)
 - Revaccinate heifers at weaning
 - IBR/PI3/BVD/BRSV
 - Killed or MLV (Safe for pregnant cows)
 - Revaccinate heifers at weaning



Replacements/Stockers

- Steers (at or before weaning)
 - Clostridial 7 or 8 way
 - Revaccinate
 - IBR/PI3/BVD/BRSV
 - Killed or MLV (Safe for pregnant cows)
- Heifers
 - Brucellosis (2-10 months)
 - Leptospirosis (5 way)
 - Revaccinate
 - Campylobacter fetus (Vibrio) / Lepto 5 (oil based) prior to breeding



Cowherd

- Cows/Bulls
 - Clostridial: 7 or 8 way
 - Preg check time
 - IBR/PI3/BVD/BRSV
 - Safe for pregnant cows
 - Preg check time
 - Leptospirosis (5 way)
 - Preg check time
 - High risk herds 2X
 - Campylobacter fetus/Vibriosis
 - Prebreeding
 - NOT bulls
 - Scour vaccine
 - Preg check time



Killed Vaccines

- One dose with many killed bacterins
- Keep cool
- Keep clean
- Keep in shade
- Buy just the right number of doses to avoid wasting vaccine

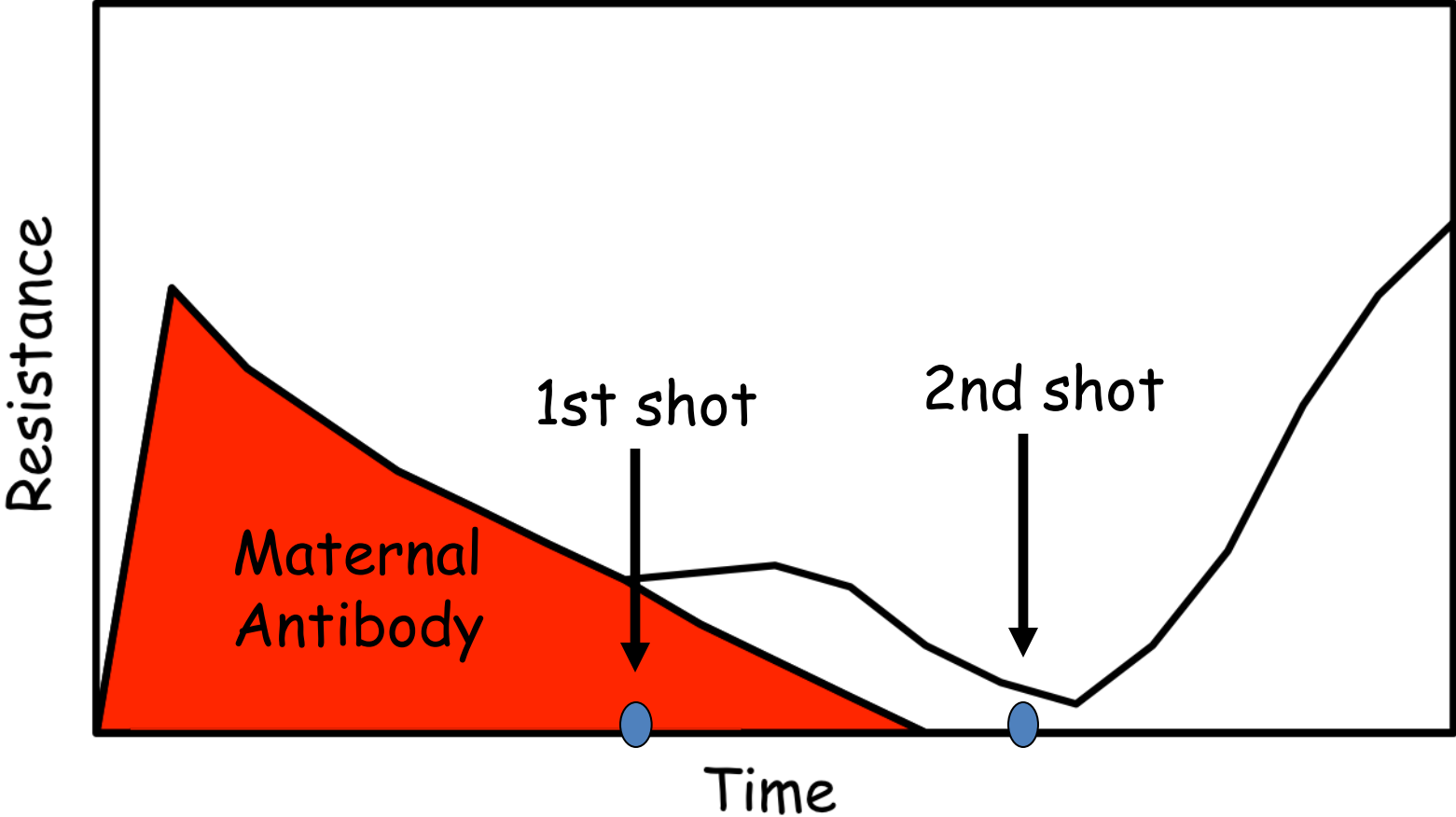


Modified Live Vaccines

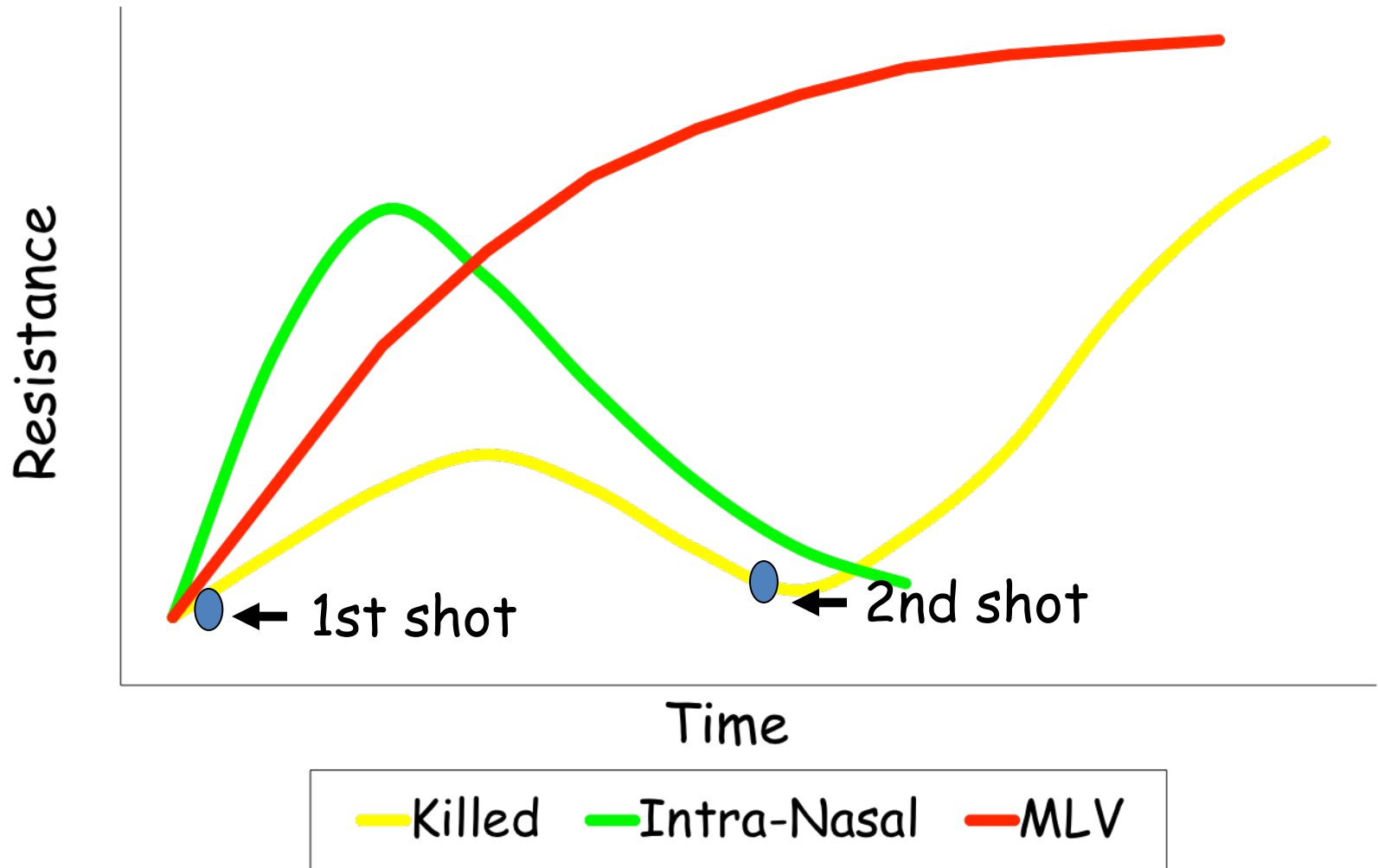
- Sterile diluent or a diluent that contains killed product (Lepto or Clostridials).
- Must be added to the dehydrated viral component
- Swirl (do not shake) contents (should be completely dissolved).
- Use within a couple of hours
- Cool, clean and shade
- Buy the right amount to avoid wasting vaccine.



Killed Vaccines



Vaccination Responses



Beijing, China



Large population =
Opportunities for U.S. Beef
-22 million people
*Houston-6.3 million

Tokyo, Japan



Large population =
Opportunities for U.S. Beef
-38 million people
*Houston-6.3 million

Beijing Meat Importers and Retailers Seminar



美国谷饲牛肉

High Quality
U.S. Grain-Fed Natural Beef
自然知味之选

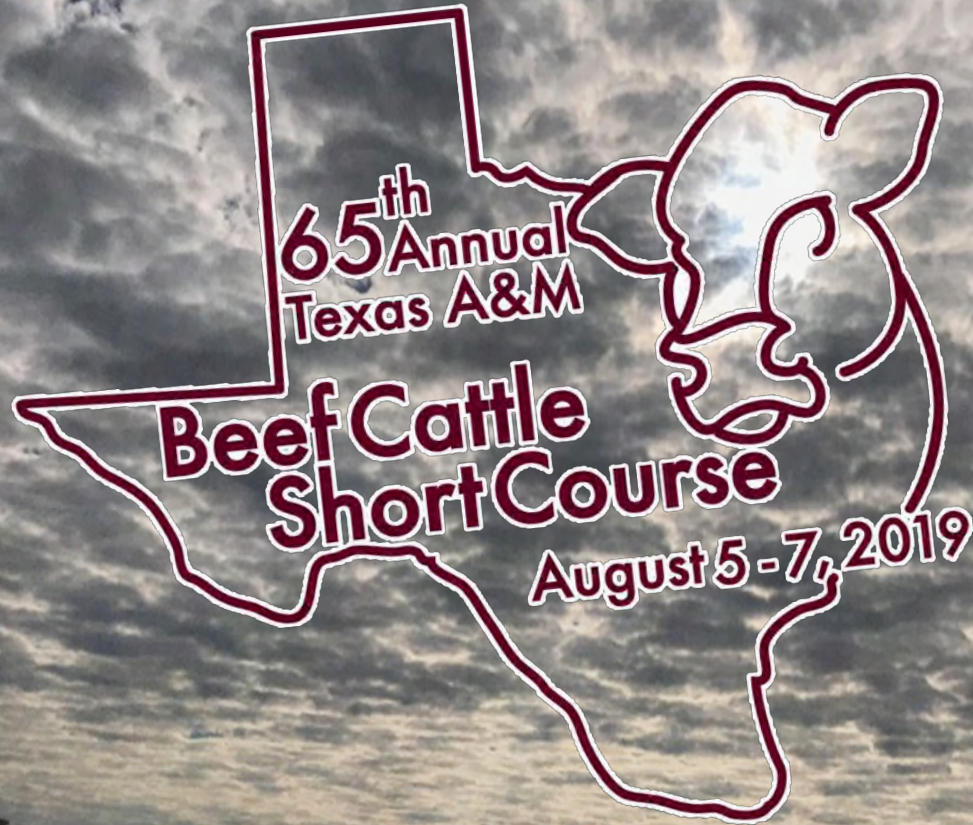


Tokyo, Japan Urban Grilling



Teaching Japanese food
bloggers how to grill
American Steaks





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<http://beef.tamu.edu>