

What's in the medicine cabinet?

Alfredo DiCostanzo

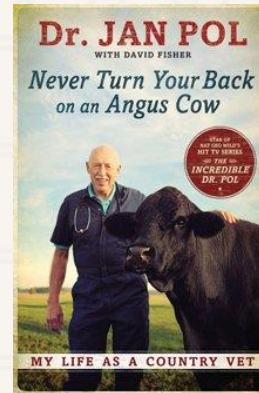
University of Nebraska Extension

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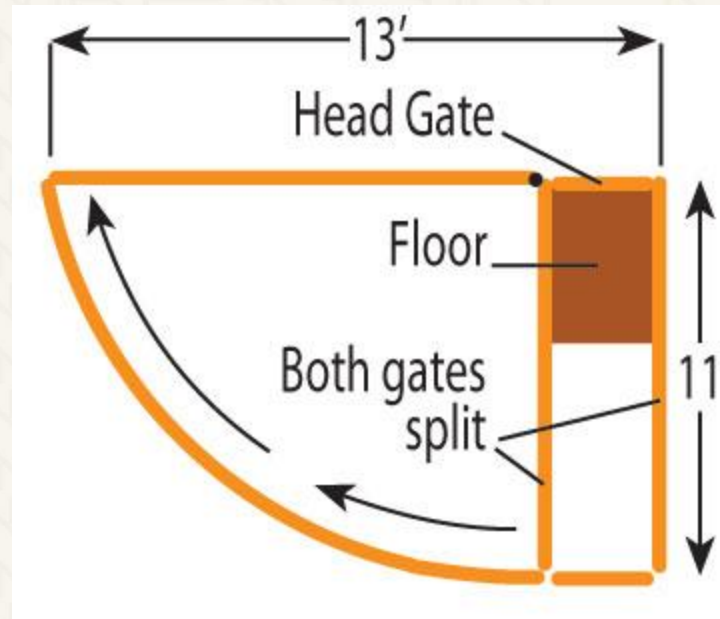
Key elements of an effective health program



Treatment Record for Individual Cattle

Animal ID: _____ Home Group/Pen: _____ Color: _____
 Rx = medication name, withdrawal = withdrawal complete

Date	Diagnosis	Temp	Method (IM, SQ, etc.)	Dosage	Person	Severity (1-5)	Rx 1	Rx 2	Rx 3	Rx 4	Comments	Withdrawal



Veterinary—client—patient relationship

 Veterinarian-Client-Patient Relationship
Validation Form

Ranch/BQA Owner/Manager

Owner/Manager Name: _____

BQA Address: _____

City: _____ State: _____ Zip: _____

Premises ID Number (optional): _____

Email: _____

Phone Number: (_____) _____

Veterinarian

Name: _____

City: _____ State: _____ Zip: _____

Clinic Name: _____

Email: _____

Phone Number: (_____) _____

I hereby certify that a valid Veterinarian-Client-Patient Relationship (VCPR) is established for the above listed owner and will remain in force until canceled by either party.

- [Veterinary-Client-Patient-Relationship-BQA-Form](#)
- All antibiotics require prescription
- Many vaccines and dewormers have withdrawal periods
- Chlortetracycline inclusion in feed requires a prescription
- Tylan-enhanced growth promotion implants require a prescription
- Most importantly,
 - 1 lb of live calf is worth \$3.50
 - 1 calf is worth \$2,000
 - Bred cow is worth \$2,500
 - You need to offset \$1,500 in cow costs
 - Or \$2,800 in cattle feeding costs
- Please make it a point to meet your veterinarian at least once yearly
 - Prevention—review and modify
 - Treatment—what antibiotics are effective against diseases the herd or yard encountered
- \$40/cow is offset with 12 lb calf sale (2% of weight)

ID

- **Extra-large panel**
 - **Females**
 - **Color = sire ID**
 - **1st digit = birth year**
 - **Next digits = birth order**
 - **Electronic ID backup**
 - **Visual backup**
 - **Second visual tag**
 - **Freeze brand**
- **ID box**
 - **Blank tags (sire colors)**
 - **Numbered tags**
 - **Tag cutter**
 - **Tagger**
 - **Pencil**
 - **ID sheets**



Records

- [BQA Assessment Resources | Beef Quality Assurance Program | Nebraska \(unl.edu\)](#)
 - Cattle health product record
 - Inventory
- Cattle health record
 - Procedure list and product
- Processing map
 - Lot procedure
- Treatment record
 - Individual cattle
 - Mass medication
 - Injectable
 - In feed

Processing, Vaccination, and Treatment Record

Date: _____ Cattle Lot #: _____

Number of Head: _____ Pen #: _____

Steers Heifer (circle what applies) Safe to Ship Date: _____

Average Animal Weight: _____ Broken Needles: Yes or No (circle)

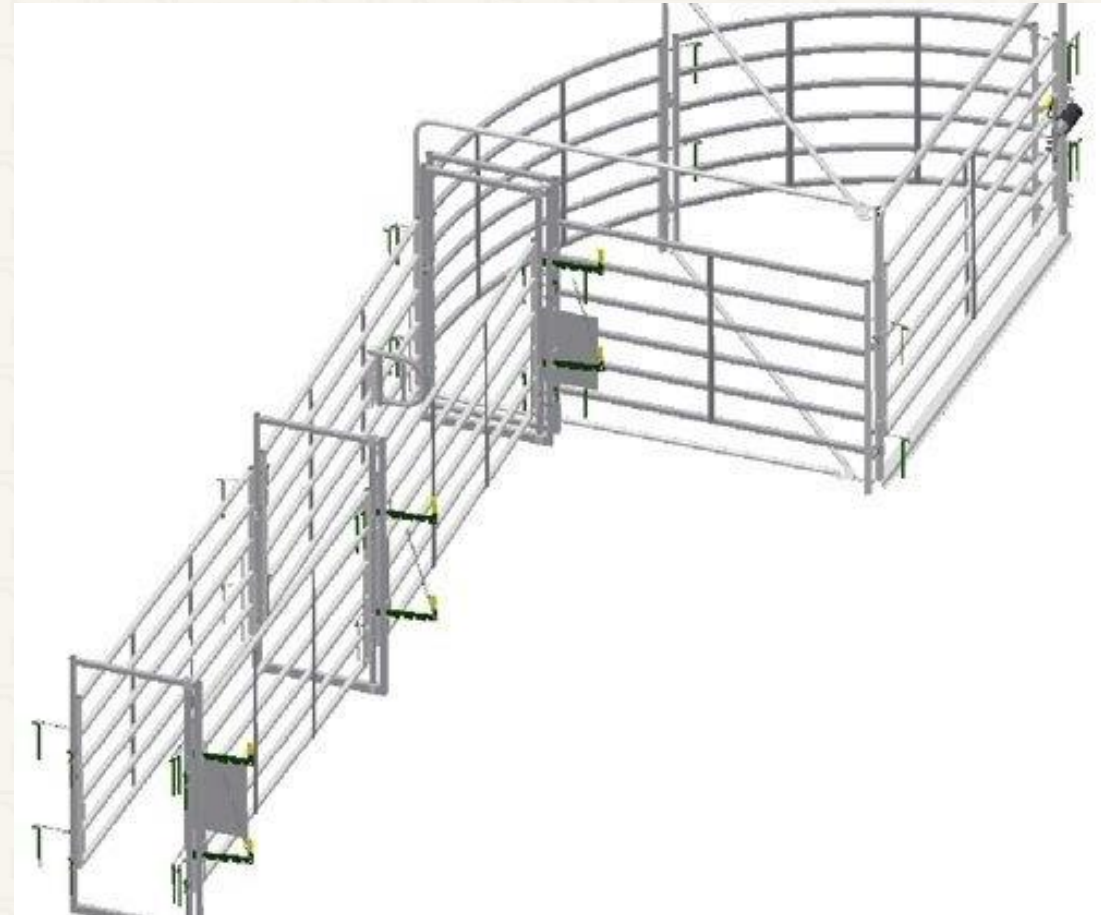
Processing Foreman (Print): _____

Processing Foreman (Sign): _____

Item#	Side of Injection (L/R)	Product/Manufacturer	Lot/ Serial # Exp Date	Dose (mL)	Route of Admin (SQ, IM, IV, Ear)	Person Administering	Slaughter Withdrawal

Equipment

- **Equipment**
 - Crowd tub
 - Bud box
- **From \$7,000**
 - Let's use \$10,000
 - Depreciate 20 year
 - \$12.50/cow/year (40-cow herd)



Scour vaccines—vaccinate the calf or cow?



Bovine respiratory disease—growing calves

Viral

- Infectious bovine rhinotracheitis (IBR)
- Parainfluenza 3 (PI3)
- Bovine respiratory syncytial virus (BRSV)
- Bovine viral diarrhea virus (BVDV)
 - Types I and II
- **Viral vaccines labeled up to 5-way**

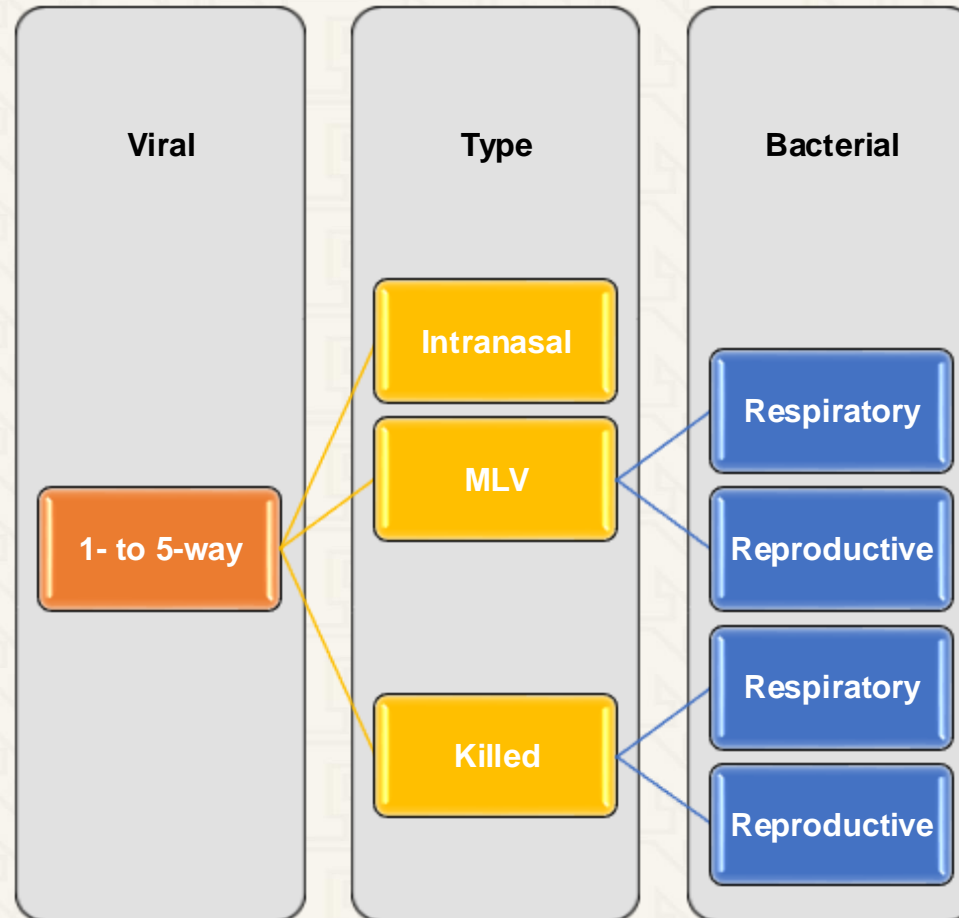
Bacteria

- *Pasturella multocida*
- *Mannheimia hemolytica*
 - **Shipping fever**
 - **Single or with a viral vaccine**
- *Histophilus somni*
 - **Single or with a clostridial vaccine**
- *Mycoplasma bovis****
 - **Single commercial vaccine for sale**
 - **Many autogenous preparations**

Reproductive diseases—growing and breeding cattle

- **Bacteria**
- *Campylobacter fetus* var. *venerealis*
- *Leptospira canicola*
- *L. grippotyphosa*
- *L. hardjo*
- *L. icterohaemorrhagiae*
- *L. Pomona*
- **Reproductive 5-way**
- **Virus**
- **Infectious bovine rhinotracheitis (IBR)**
- **Parainfluenza 3 (PI3)**
- **Bovine respiratory syncytial virus (BRSV)**
- **Bovine viral diarrhea virus (BVDV)**
 - Types I and II
- **Adds to reproductive 10-way**

Viral vaccine decision tree



Suffixes to remember

Scour vaccines

- **Scour in name:**
 - Cow vaccine
- **Calf in name:**
 - Calf vaccine
- **Bug names:**
 - Rota corona virus
 - Clostridium
 - E. coli

Respiratory vaccines

- 3-way to 5-way
- **Bug names:**
 - IBR
 - BVD
 - PI3
 - BRSV
- **MH and/or PM**
 - **Combined with shipping fever**

Clostridial diseases—how we get to 7- to 9-way

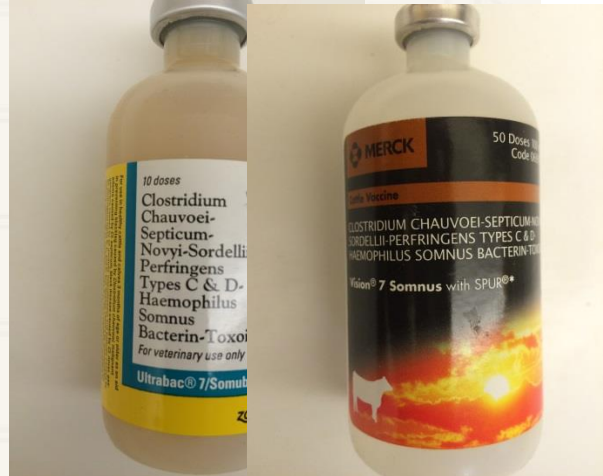
- ***Clostridium chauvoei* (Blackleg)**
- ***Clostridium septicum* (Malignant Edema)**
- ***Clostridium novyi* (Black Disease)**
- ***Clostridium sordellii***
- ***Clostridium tetani* (Tetanus)**
- ***Clostridium perfringens* C&D (Enterotoxemia)**

- ***Clostridium hemolyticum* (Redwater disease)**
 - TX & MT, lesser degree NV, ID, CA, OR
- ***Clostridium botulinum* (Botulism)**
 - TX

Clostridial diseases—choices at a glance



7-way

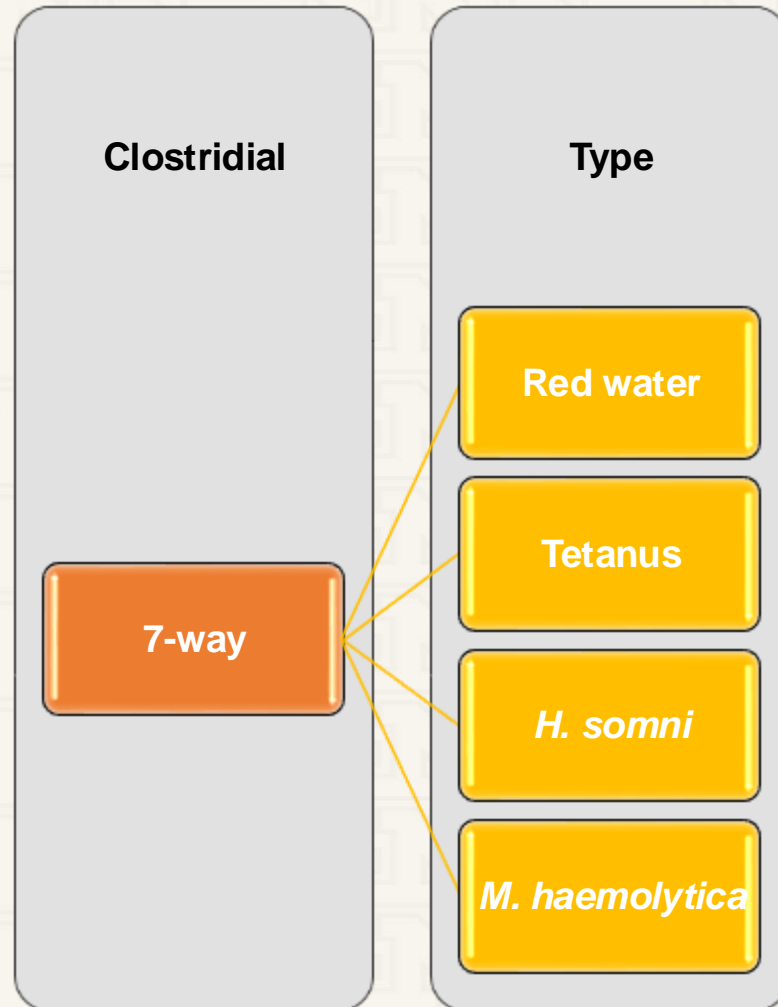


7-way or 8-way plus another bug



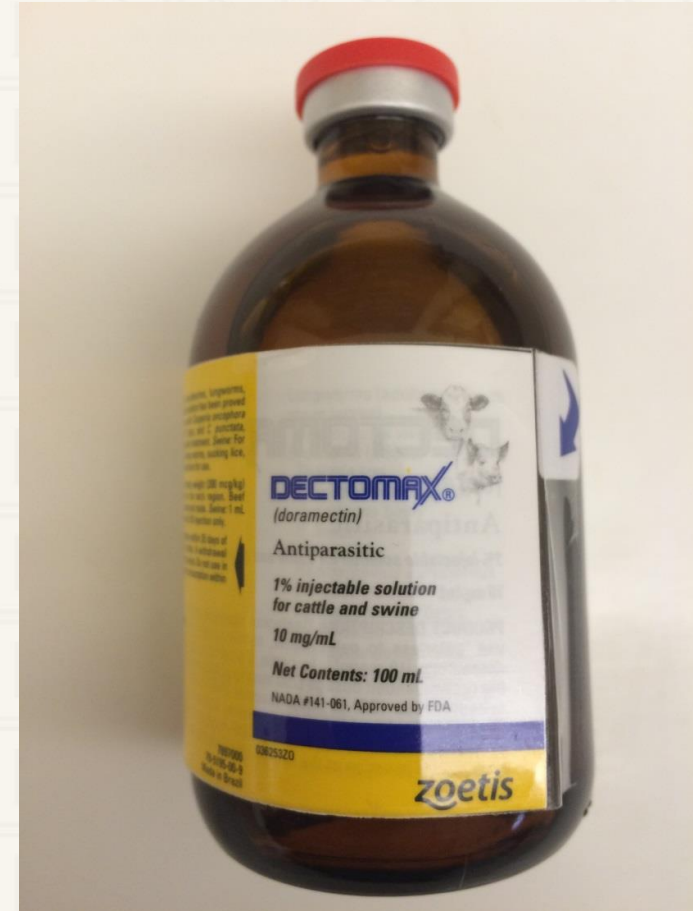
8-way or 9-way

Clostridial disease decision tree



Deworming—white vs avermectins

Individual dosing:
Oral, injectable, pour-on, in feed
Pour-on -> internal & external



External parasites



- **Parasite control questions**
 - **White vs avermectin**
 - Once vs twice
 - When
 - **Fluke control**
 - What
 - When
 - **External parasites**
 - Fly control in summer
 - Lice control in winter

Reproductive protocols



- [Beef Reproduction Task Force Estrus synchronization planner](#)
- [Iowa Beef Center | Iowa State University](#)

Beef Reproduction Task Force BEEF COW PROTOCOLS 2024

For additional synchronization protocols visit BeefRepro.org

HEAT DETECTION & TAI

For best results perform AI 12 ± 2 hr after detection of estrus. Use of estrus detection aids (EDA) is highly recommended.

Select Synch & TAI
Heat detect & AI days 6 to 10 and TAI with GnRH all non-responders 72 - 84 hr after PG.

Select Synch+CIDR® & TAI
Heat detect & AI days 7 to 10 and TAI with GnRH all non-responders 72 - 84 hr after PG.

PG 6-day CIDR® & TAI
Heat detect & AI days 0 to 3. Insert CIDR® - GnRH to non-responders. Heat detect & AI days 9 to 12. TAI with GnRH non-responders 72 - 84 hr after PG and CIDR removal. Estradiol may be used in heifers.

7-day CO-Synch+CIDR® & Split-TAI
Perform first TAI 66 ± 2 hr after PG in estrous cows. Second TAI with GnRH only in non-estrous cows.

FIXED-TIME AI

Time for Fixed-time AI (TAI) should be considered as the approximate average time of insemination based on the number of females to inseminate, labor, and facilities.

7-day CO-Synch+CIDR®
Perform TAI with GnRH at 60 to 66 hr after PG.

5-day CO-Synch+CIDR®
Perform TAI with GnRH at 72 ± 2 hr after CIDR removal. Two injections of PG 8 to 12 hr apart are required for this protocol.

7&7 Synch
Perform TAI with GnRH at 66 ± 2 hr after CIDR removal.

Bos indicus PG 5-day+CIDR®
Perform TAI with GnRH at 66 ± 2 hr after CIDR removal.

EDA: Azevis™, ASBMax™, Detect heat™, EpiWatch™, Zeev™, Mate-Mate™, SensiMax™, Quick Drop™, T&T Farm™, Yousi-Sense™
GnRH: Optrexin® Factor®, Fertagyl®, Ovacyp®/CIDR®/Evep®
PG: estruPLAN®, Estrumate®, Lutalyse®, Lutalyse® High-Dose™, Prostaglandin™, SYNESQUE™

These protocol sheets were assembled by the **Beef Reproduction Task Force**. Programs are intended to promote sustainable food production systems by the beef industry through sound reproductive management practices for replacement heifers and postpartum cows. The Beef Reproduction Task Force recommends working with a licensed veterinarian for proper use and application of all reproductive hormones. **Approved 9-5-2024**. www.beefrepro.org

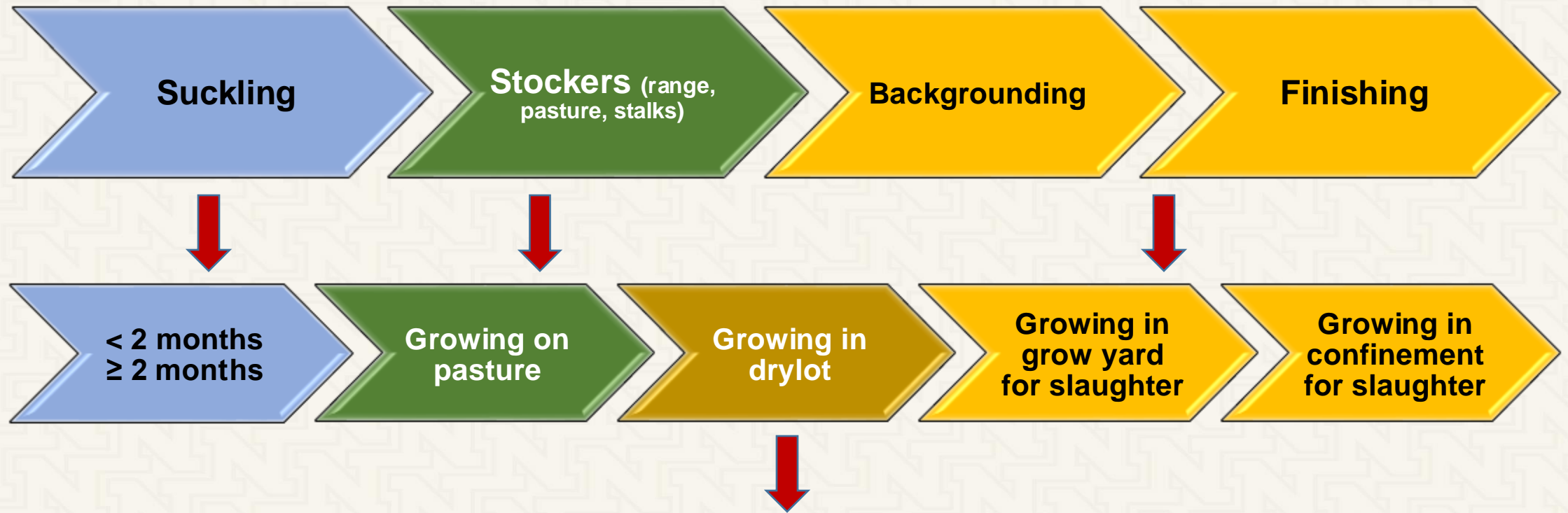
Other considerations

- Pinkeye vaccine
- Anthrax vaccine
- VFD Rx
 - CTC



Chemical family	Cephalosporin	Fluoroquinolones	Thiamphenicol	Macrolide	Tetracycline	Penicillin
Trade name	Naxcel, generic	Advocin	Nuflor, generic	Zactran	LA-200, generic	Generic
	Excenel, generic	Baytril 100, generic	Resflor Gold	Zuprevo	Noromycin 300 LA	
	Excede		Loncor	Micotil		
				Draxxin, Draxxin 25*, Arovyn, Increxxa, generic		
				Draxxin KP		
				Tylan		
BRD treatment	<i>M. hemolytica, P. multocida, H. somni</i>	<i>M. hemolytica, P. multocida</i>	<i>M. hemolytica, P. multocida, H. somni</i>	<i>M. hemolytica, P. multocida, H. somni</i>	<i>Pasteurella spp., Histophilus spp.</i>	<i>P. multocida</i>
BRD control	Excede	<i>M. hemolytica, P. multocida</i>	<i>M. hemolytica, P. multocida, H. somni</i>	<i>M. hemolytica (not Draxxin 25)</i>	Noromycin 300 LA	
Treatment of infectious bovine keratoconjunctivitis (IBK, pinkeye)				Tulathromycin (not KP)	<i>Moraxella bovis</i>	
Footrot, interdigital phlegmon, or pododermatitis	<i>Fusobacterium necrophorum</i>		Nuflor, Loncor	Tulathromycin (not KP)	<i>Fusobacterium necrophorum</i>	
Metritis	Excenel, Excede				<i>Staphylococci, Streptococci</i>	
Diphtheria					<i>Fusobacterium necrophorum</i>	
Bacterial enteritis (scours)					<i>E. coli</i>	
Wooden tongue					<i>Actinobacillus lignieresii</i>	
Leptospirosis					<i>Leptospira pomona</i>	
Anaplasmosis					LA-200, generic	
Anthrax					LA-200, generic	
Wound infections					<i>Staphylococci, Streptococci</i>	
Pain reliever included			Resflor Gold	Draxxin KP		
Longest withdrawal period listed, days	13	28	38	42	28	4

Matching production cycle (calf to finished cattle) implant strategies to FDA-defined target beef cattle classes and variants, FDA GFI 191)



Weaned growing beef steers/heifers (beef and dairy breeds) maintained in a dry lot. They receive the majority of their diet from harvested forage (possibly with a supplement).

Building up and finishing with reimplant



Starting from grass no reimplant at finish





EXTENSION

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