

Stocker vs Feedlot Health

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Zoetis Technical Services



Phases

- Two distinct stages of production:
 - * Survival
 - * Productivity
- The amount of time a pen spends in Stage I will vary greatly.
- Complete Stage I before trying to move on to Stage II.

Herd Health Goal

- Improve Immunity
 - Vaccines
 - Stress Management
 - Parasite Control
 - Nutrition
- ↓ Disease Challenge
 - BVD testing
 - Metaphylaxis / Control

Focus on 1st 21 days

REHYDRATION

Water

- How much water does a 400 # calf need in 24 hours?
 - No stress about 3X DMI
 - Stress up to 5X DMI

	Degrees F°				
Lbs	50	58	70	80	90
400	4 gal	5 gal	6 gal	7 gal	10 gal
600	6 gal	7 gal	8 gal	9 gal	13 gal
800	7 gal	8 gal	9 gal	11 gal	15 gal

Considerations

- Is it clean?
- Can it be found?
- Is space available?
- Water pressure?
- Can they reach it?



REST

Rest

- Depends on length of transport
- More importantly .. Location of pen / pasture
 - Preferred
 - Not close to high traffic areas

PARASITE CONTROL



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Disease Forms (Muirhead 1989)



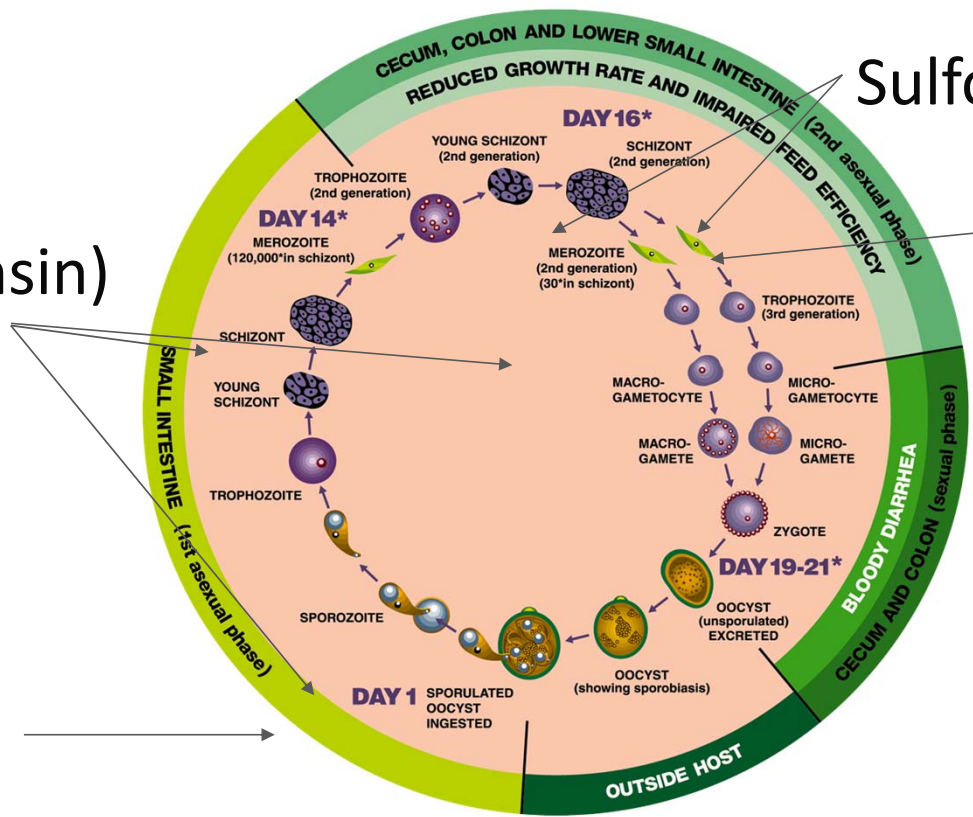
Clinical Coccidiosis--5%



Subclinical Coccidiosis--95%

Ionophores
(Bovatec, Rumensin)

Decoquinatate
(Deccox)



Sulfonamides

Amprolium
(Corid)

RE-ALIMENT

NUTRITION AND IMMUNITY ON ARRIVAL

Stressed Receiver Recommendations (Corners)

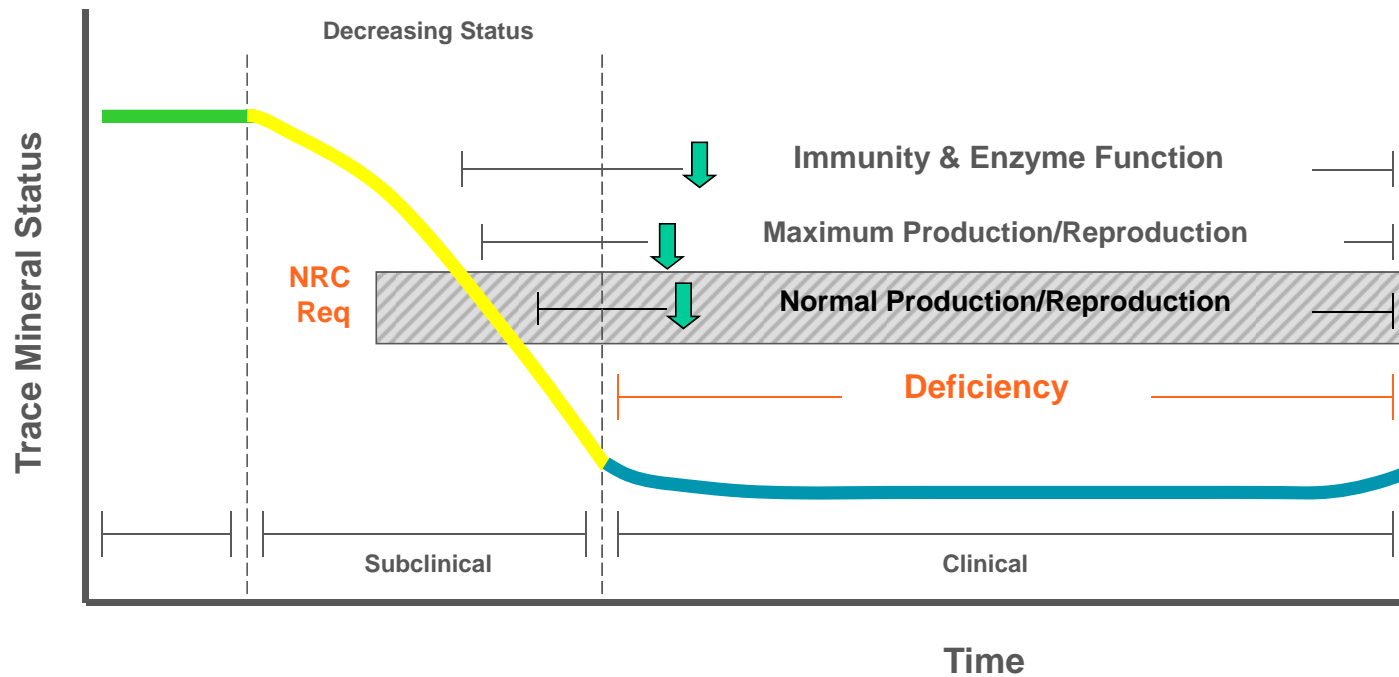
- Crude Protein 14-16%
- NEg – 40 to 45 Mcal / lb
- Cu - 15+ ppm
- Zn - 45+ ppm (3x Cu)
- K- 1.2% to 1.4%
- Ca:P 0.7 / 0.45%
- Vit A 4,000 to 6,000 IU / kg
- Vit E 75 to 100 IU / kg

Nutrition and Immunity (Energy /Crude Protein)

- High concentrate diets are consumed at higher level, but increase morbidity.
- Increases in protein boost performance, but can increase morbidity.
- With all programs, moderation is best.

IMPACT OF STATUS

IMPACT OF DECREASING TRACE MINERAL STATUS ON BIOLOGICAL FUNCTION



Minerals

- Understanding of minerals in ruminants is not extensive
- Data to support Cu, Se and Zn
- Cu requirements higher for Sim, Char (?), Lim (?)
 - Jersey are most sensitive
- Chelated > Sulfates > Oxide

CONSIDERATIONS BEYOND RATION DESIGN





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Non-Ration Design Considerations

- Phases
 - Survival
 - Growth
- Group Size
 - 25 to 40 (?)
- Dry Matter Intake
 - 1.5% DMI by day 7
 - 2 to 2.25% DMI by day 14
 - 0.5 lb/hd/day every 3rd day
- Feed 2X / day on new cattle
- Use Entire Bunk

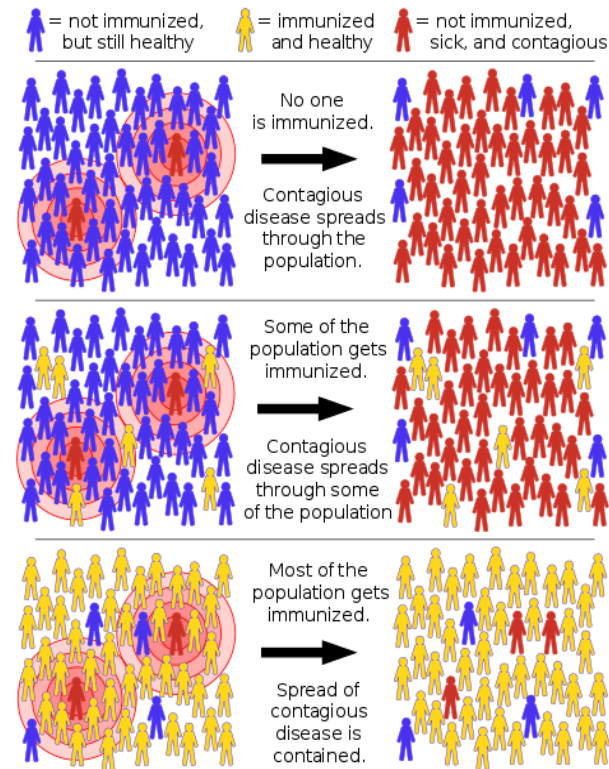
VACCINES

Vaccine Summary

- Focus on pathogens that can be controlled via vaccines
 - Use MLV IBR, BRSV, BVD, PI3
- Minimize number of gram negatives
 - Ex: Pasturella, Mannheimia, Pinkeye, Histophilus (somnus)
- Vaccine effectiveness can be overcome with poor attention to details

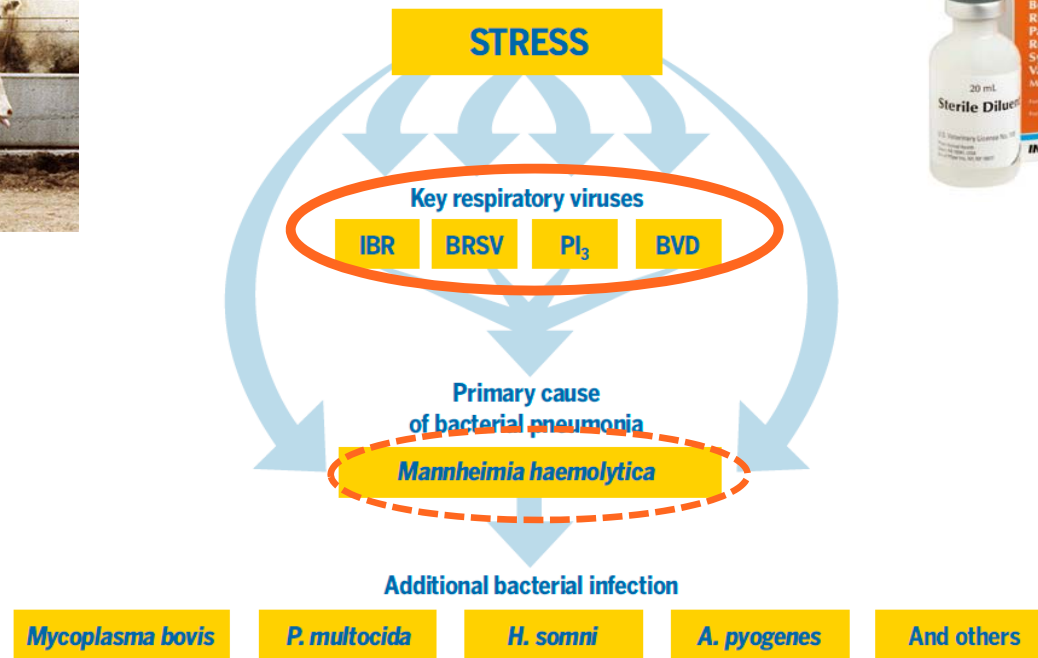
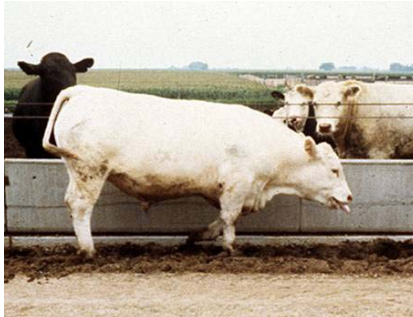
Herd Immunity

- Human or Animal?
- Form of indirect protection when a large % of population becomes immune to an infection, providing a measure of protection for individuals who are not immune
- Best immunity natural exposure....if they survive





ELEMENTS NECESSARY FOR CLINICAL BRD



ANTIBIOTICS FOR CONTROL

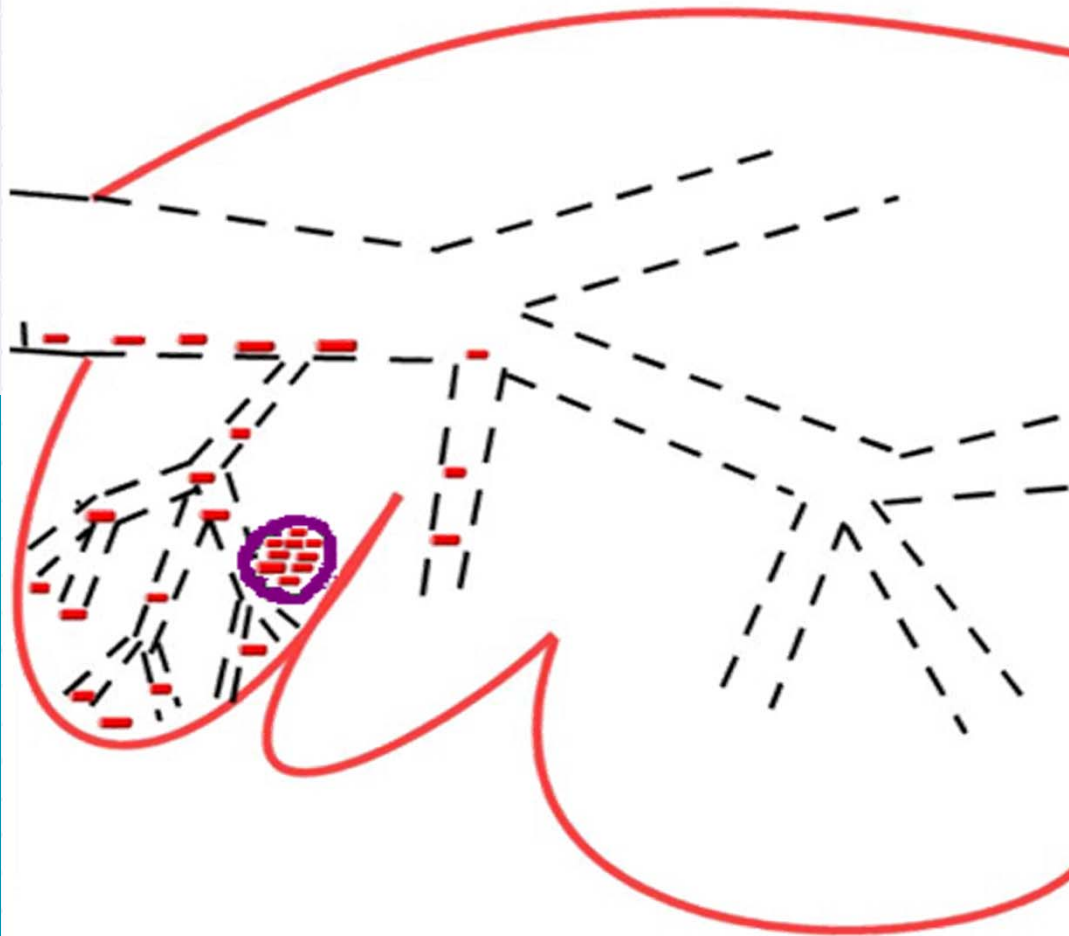
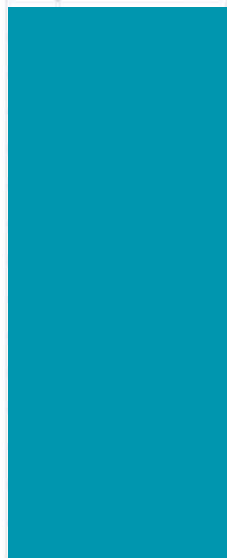
Antibiotics Summary

- Bacteria multiply rapidly once entering lower respiratory system
- ISU ranking of antibiotics for treatment
 - Draxxin and Baytril as better choices
 - Tetracycline as worst choice
- KSU ranking of antibiotics for control
 - Draxxin, Zactran, Micotil, Excede reduced 60 day morbidity
 - Draxxin reduced mortalities and re-pulls as compared to others
- Multiple pathogens reduce effectiveness of any treatments / control

O'Connor, Coetzee, et al, Preventative Vet Med 2012

Abell, Theurer, et al, JAS, 95, 2017

Hrs	# Bacteria
0	1
1	2
2	4
3	8
4	16
5	32
6	64
7	128
8	256
9	512



Summary

- Starter rations is not place to save \$\$
 - Yeast, Chelated Minerals, Deccox, etc.
- Best Health Program Doesn't Work Without Good Nutrition Program
- Devil is in Details
 - Rehydrate, Rest, and Re-aliment
- Vaccines and Antibiotics can be effective when used appropriately