

METZGER

Veterinary Services

Updates from Metzger Veterinary Services

Dr. Jacques van Zyl

Overview

- Health Trends
- Liver Biopsy Results
- Lung Culture Results
- Experior



Issues to note this past
year..

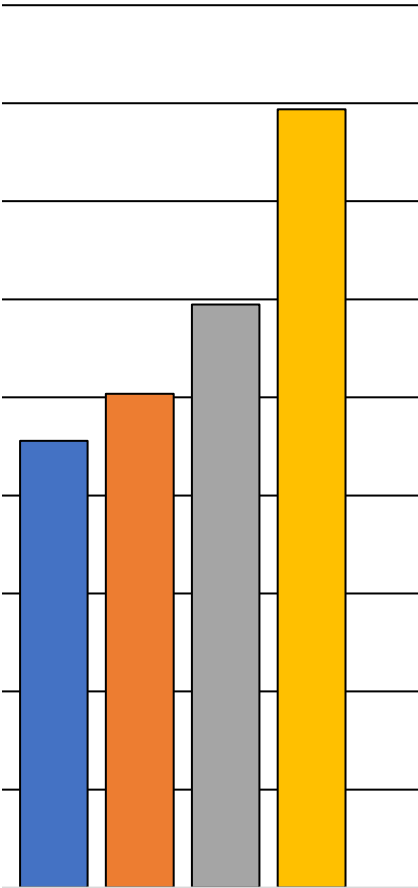


Trends with incoming
calves..



Treatment Rates Throughout the Fall

18.00%
16.00%
14.00%
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%

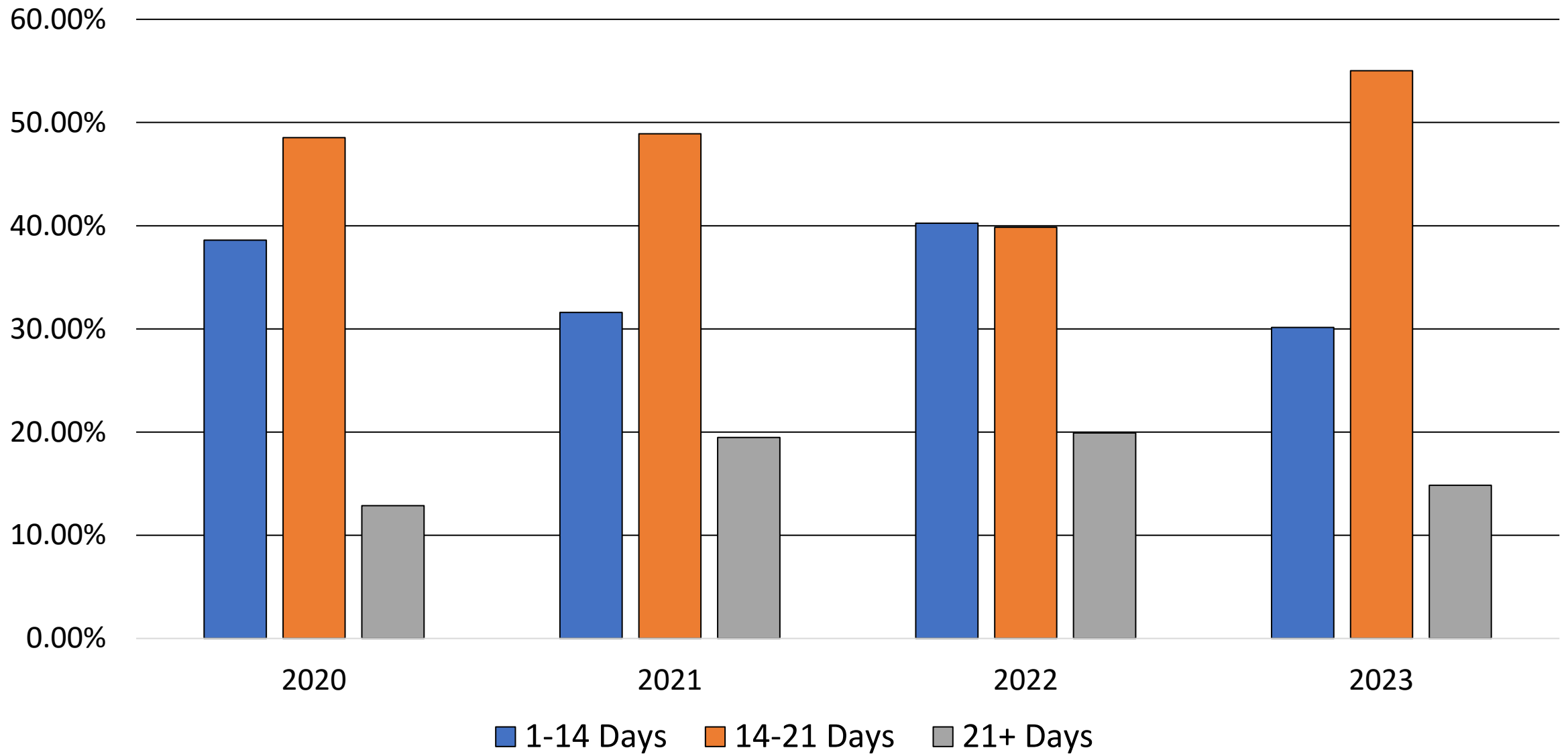


2023

■ September ■ October ■ November ■ December



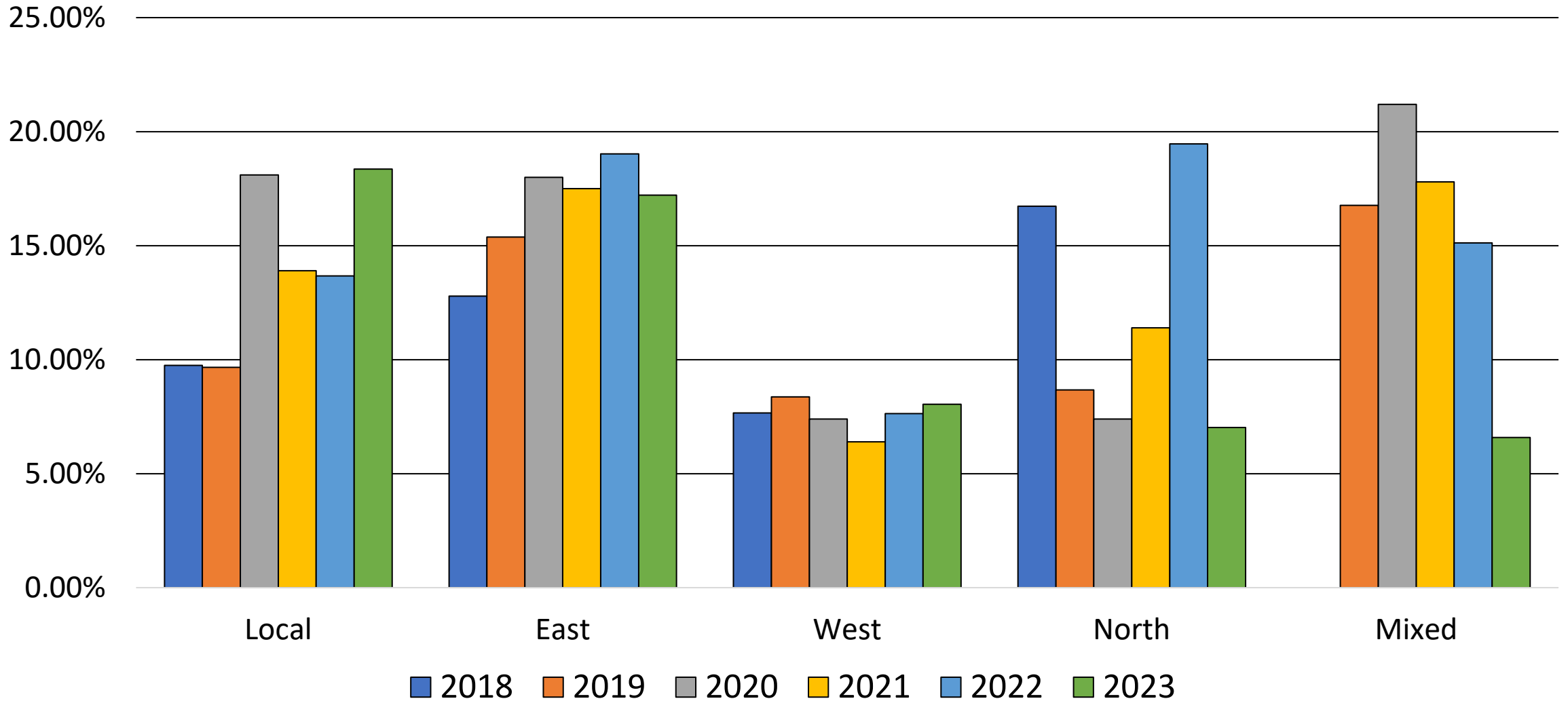
Timing of Groups Treatments Year Over Year



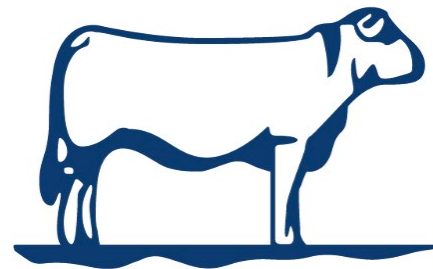
Health Trends Based on Origin of Cattle?



Treatment Rate based on Origin

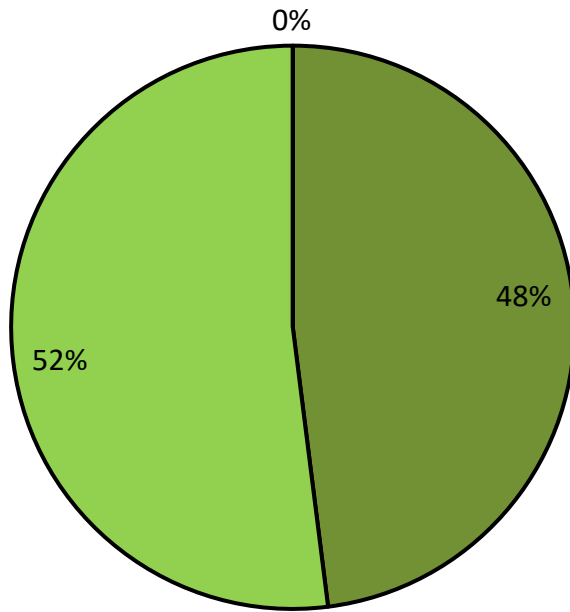


Metzger Vet Liver Biopsy Study



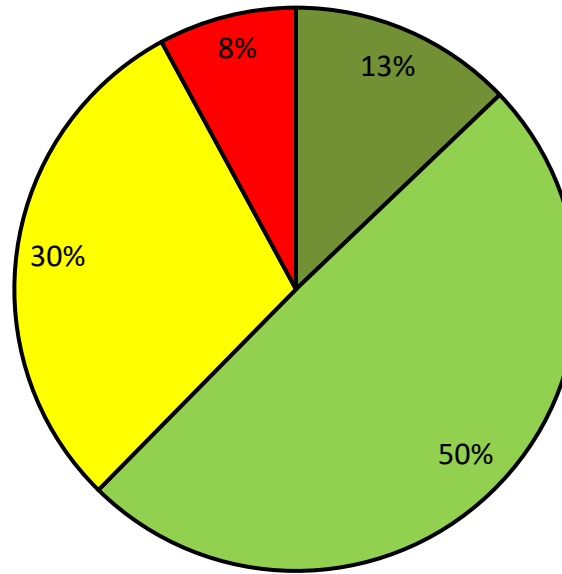
Selenium

Western Calves



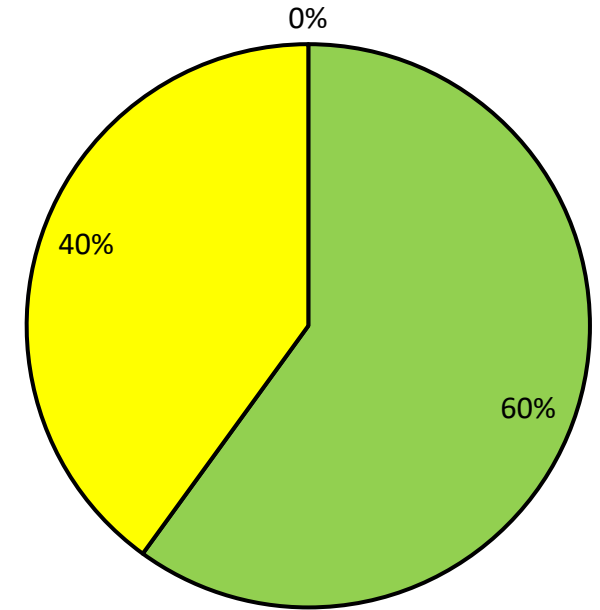
■ High Normal ■ Normal ■ Marginal ■ Deficient

Ontario Calves

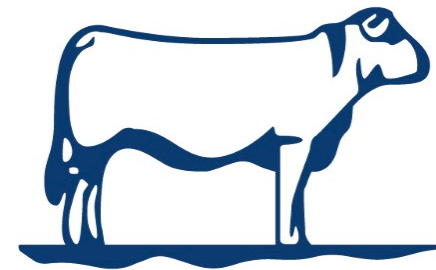


■ High Normal ■ Normal ■ Marginal ■ Deficient

Virginia Calves

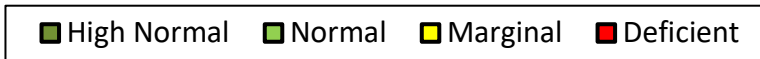
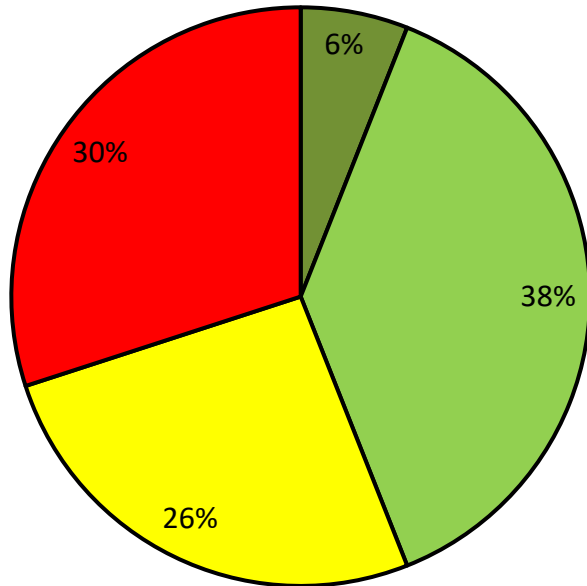


■ High Normal ■ Normal ■ Marginal ■ Deficient

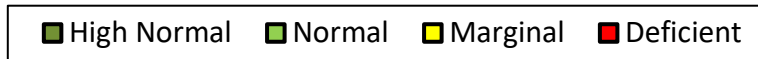
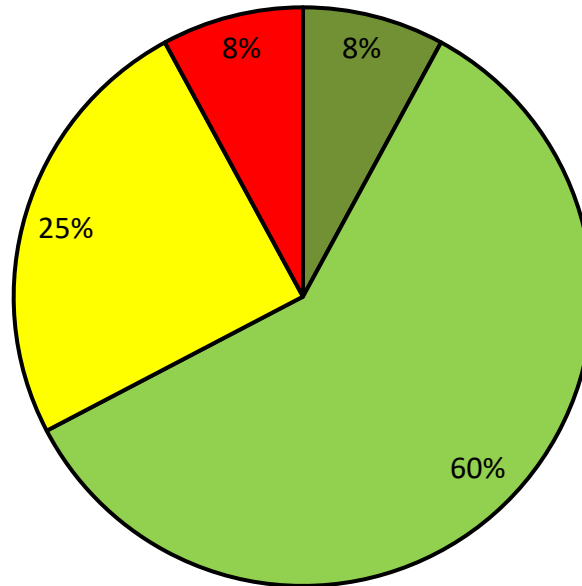


Copper

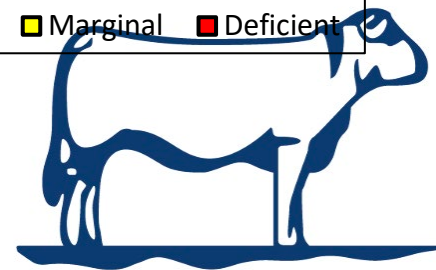
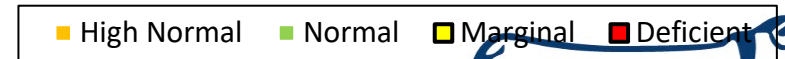
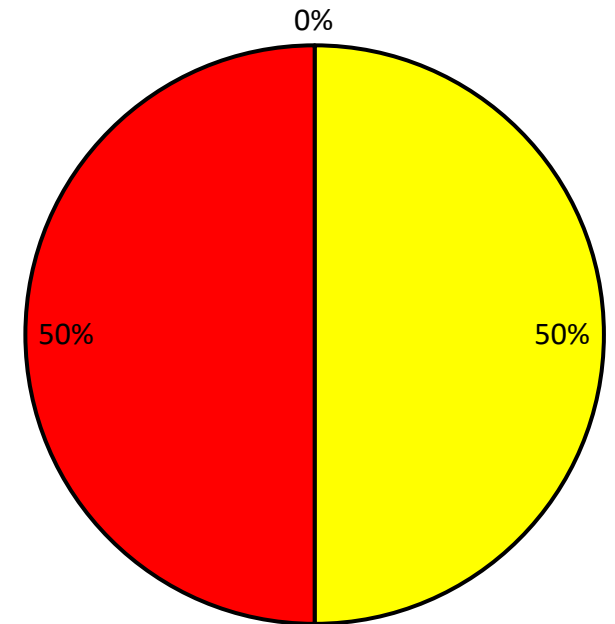
Western Calves



Ontario Calves



Virginia Calves



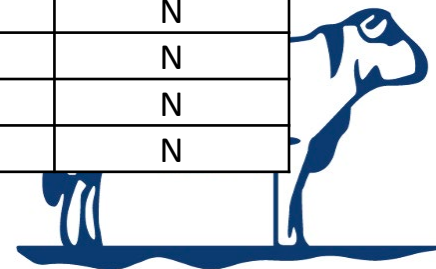
Does it Change Over The
Fall?



Alberta Calves September vs December

Tag	Temp	BCS	Vit A	Vit E	Magnesium	Manganese	Iron	Cobalt	Copper	Zinc	Selenium	Molybdenum
B1	102.3	3/5	Marg		HN	N	N	HN	N	HN	HN	N
B2	103.2	3/5	Marg		N	N	N	HN	N	N	N	N
B3	102.4	3/5	Marg		HN	N	N	HN	N	HN	N	HN
B4	102.8	3/5	Marg		N	N	N	N	HN	N	N	N
B5	102.8	4/5	N		HN	N	N	HN	HN	N	HN	N
B6	102.9	3/5		N	HN	N	N	HN	DEF	N	N	N
B7	102.7	3/5		Marg	HN	N	N	HN	N	N	HN	HN
B8	102.4	3/5		N	N	N	N	HN	N	N	HN	N
B9	103.1	3/5		N	HN	N	N	HN	HN	N	N	N
B10	103	3/5		N	HN	N	N	HN	N	HN	N	N

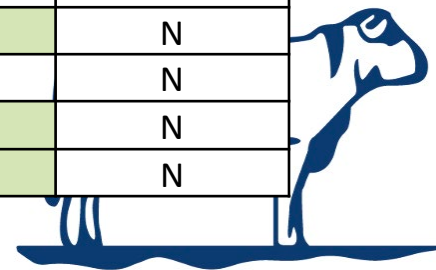
Tag	Temp	BCS	Vit A	Vit E	Magnesium	Manganese	Iron	Cobalt	Copper	Zinc	Selenium	Molybdenum
50	105	3/5	DEF	MARG	N	DEF	N	N	DEF	N	N	N
51	104	3/5	MARG	N	N	MARG	N	N	DEF	N	N	N
52	103.3	3/5	N	N	N	MARG	N	N	MARG	N	N	N
53	102.9	3/5	MARG	HN	N	MARG	N	N	DEF	N	N	N
54	102	3/5	MARG	N	N	N	N	N	MARG	N	N	N
55	102.7	3/5	MARG	N	N	MARG	N	N	DEF	N	N	N
56	102.2	3/5	MARG	N	N	MARG	N	N	DEF	N	N	N
57	102	3/5	N	N	N	MARG	N	N	DEF	N	N	N
58	102.5	3/5	MARG	N	N	MARG	N	N	DEF	N	N	N
59	102.8	3/5	MARG	N	N	MARG	N	N	MARG	N	N	N



Sask Calves September vs October

Tag	Temp	BCS	Vit A	Vit E	Magnesium	Manganese	Iron	Cobalt	Copper	Zinc	Selenium	Molybdenum
1	NA	NA	N		N	N	N	N	N	N	HN	N
2	NA	NA	N		N	MARG	N	N	DEF	N	HN	N
3	NA	NA	N		N	N	N	N	MARG	N	HN	N
4	NA	NA	N		N	MARG	N	N	N	N	HN	N
5	NA	NA	N		N	MARG	N	N	MARG	N	HN	N
6	NA	NA		HN	N	MARG	N	N	MARG	N	HN	N
7	NA	NA		HN	N	MARG	N	MARG	MARG	N	N	N
8	NA	NA		HN	N	MARG	N	N	MARG	N	N	N
9	NA	NA		N	N	N	N	N	MARG	N	N	N
10	NA	NA		N	N	MARG	N	N	N	N	N	N

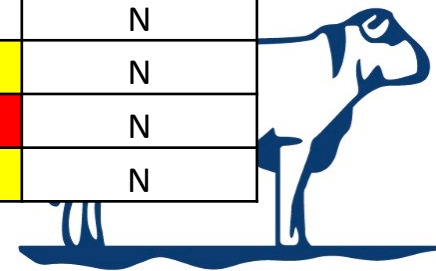
Tag	Temp	BCS	Vit A	Vit E	Magnesium	Manganese	Iron	Cobalt	Copper	Zinc	Selenium	Molybdenum
1	105.1	4/9	MARG	N	N	MARG	N	N	DEF	N	N	N
2	103.2	3/9	MARG	N	N	MARG	N	N	DEF *	N	HN	N
3	103.7	4/9	MARG	N	HN	MARG	N	N	MARG	N	HN	N
4	102.8	5/9	N	N	N	N	N	N	DEF	N	HN	N
5	105.6	5/9	MARG	N	N	MARG	N	N	MARG	N	HN	N
6	103	4/9	N	N	N	MARG	N	N	DEF	N	N	N
7	102.2	4/9	MARG	N	HN	MARG	N	N	DEF *	N	HN	N
8	103.5	5/9	N	N	N	MARG	N	N	MARG	N	N	N
9	102.8	4/9	N	N	N	MARG	N	N	N	N	HN	N
10	104.9	4/9	MARG	N	HN	MARG	N	N	DEF *	N	HN	N



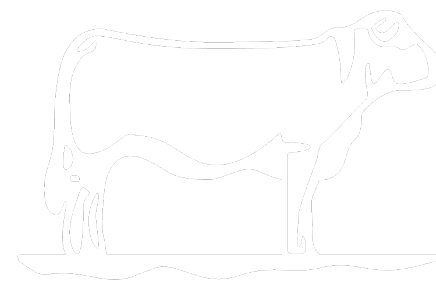
Local Calves October vs November

Tag	Temp	BCS / Back tag	Vit A	Vit E	Magnesium	Manganese	Iron	Cobalt	Copper	Zinc	Selenium	Molybdenum
1	102.5	6 / 25	N	N	HN	MARG	N	N	N	N	N	N
2	103.3	6 / 24	N	N	N	MARG	N	N	N	N	N	N
3	103.3	6 / 16	N	N	N	DEF	N	MARG	DEF	MARG	N	N
4	103.2	6 / 16	N	HN	N	DEF	N	N	N	N	MARG	N
5	102.5	5 / 22	N	HN	N	MARG	N	N	DEF	N	MARG	N
6	102.1	6 / 11	N	N	N	MARG	N	N	N	N	N	N
7	102.7	6 / 28	N	N	N	MARG	N	N	N	N	HN	N
8	103	5 / 11	N	HN	N	N	N	N	HN	N	HN	N
9	102.8	5 / 11	N	N	N	MARG	N	N	HN	N	N	N
10	103.2	5 / 11	N	HN	N	N	N	N	HN	N	HN	N

Tag	Temp	BCS	Vit A	Vit E	Magnesium	Manganese	Iron	Cobalt	Copper	Zinc	Selenium	Molybdenum
WB1	101.2	6	N	N	N	N	N	HN	MARG	N	MARG	N
WB2	102.7	4	N	N	N	MARG	N	N	DEF	N	DEF	N
WB3	103.6	5	N	N	N	N	N	N	MARG	N	DEF	N
WB4	103.2	4	N	N	N	N	N	HN	HN	N	N	N
WB5	103.4	5	N	HN	N	MARG	N	N	N	N	MARG	N
WB6	101.5	4	MARG	N	N	MARG	N	N	N	N	MARG	N
WB7	104.1	5	N	HN	N	MARG	N	N	MARG	N	N	N
WB8	104.2	4	N	HN	N	N	N	N	N	N	MARG	N
WB9	103.1	5	N	N	DEF	DEF	N	N	MARG	N	DEF	N
WB10	102.7	5	N	N	N	MARG	N	N	N	N	MARG	N



Summary



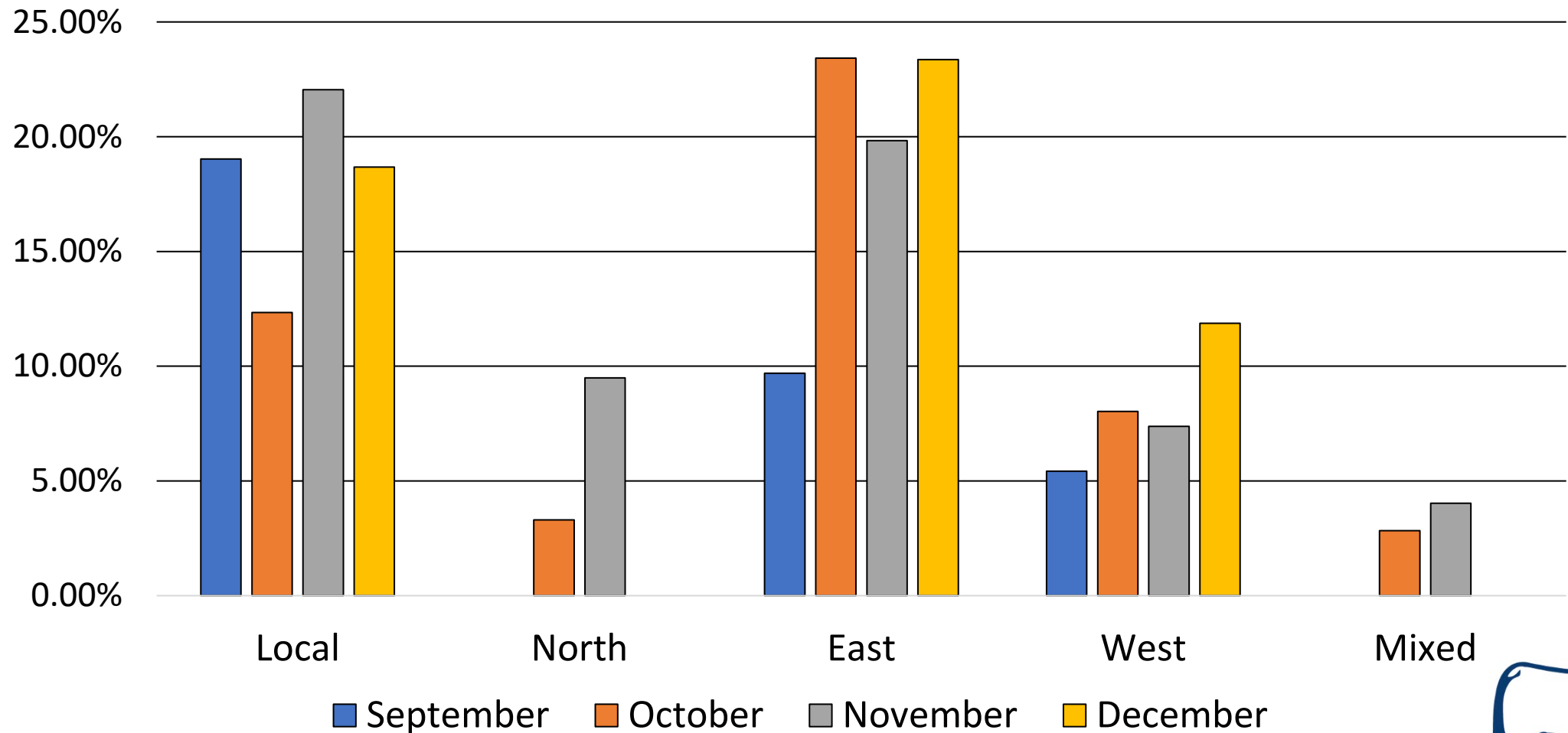
- Varying degrees of deficiencies on incoming calves.
- Western and Virginia cattle deficient in Vitamins A and E.
 - Likely forage quality deteriorating throughout summer and fall.
- Local and particularly Western and Virginia calves deficient in copper.
 - Westerns seem to get worse as fall progresses.



Could This Explain The
Higher Treatment Rates
As the Fall Progresses?



2023 Pneumonia Treatment Rate Throughout the Fall

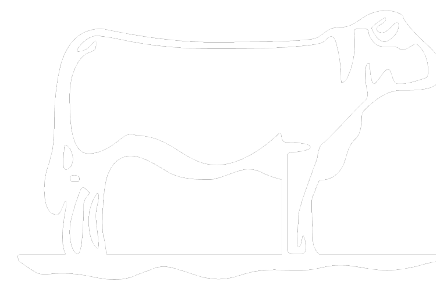


MVS Fall Survey Results:

	% Tx	% Dead	% Brainer	% Joint
Selenium	15.34%	1.09%	0.24%	0.83%
Multimin	11.72%	1.04%	0.00%	0.39%



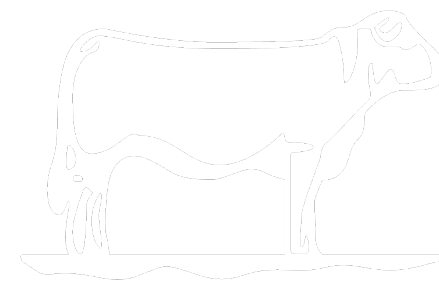
Summary



- Varying degrees of deficiencies on incoming calves.
- Western and Virginia cattle deficient in Vitamins A and E.
 - Likely forage quality deteriorating throughout summer and fall.
- Local and particularly Western and Virginia calves deficient in copper.
 - Westerns seem to get worse as fall progresses.
 - Linked to increased treatment rates throughout fall?
 - Could this be the reduced tx rate for multimin calves?
- Local and Eastern calves deficient in selenium.
 - All western cattle had adequate levels of Selenium



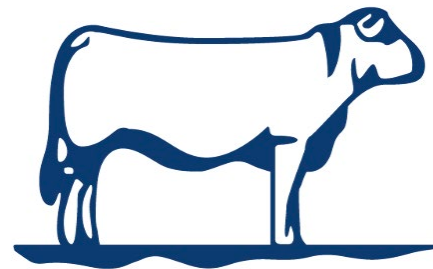
Recommendations?



- Local and particularly Western and Virginia calves may benefit from a copper injection on arrival
 - Multi-min 90: Cu, Zn, Se, Mn
- Local, Eastern and Virginia calves NEED selenium.
- A good quality mineral on arrival is a necessity.



Metzger Vet Lung Sample Study



Samples Collected and Tested

- Collected from both dead and DNPS
- 27 swabs grew BRD bacteria
 - 14 grew *Histophilus* (52%)
 - 10 grew *Mannheimia hemolytica* (37%)
 - 4 grew *Pasteurella multocida* (15%)
- Susceptibilities on 21 of the samples (not all were run)
 - 10 *Histophilus* Susceptibilities
 - 6 *Mannheimia* susceptibilities
 - 5 *Pasteurella* susceptiblites

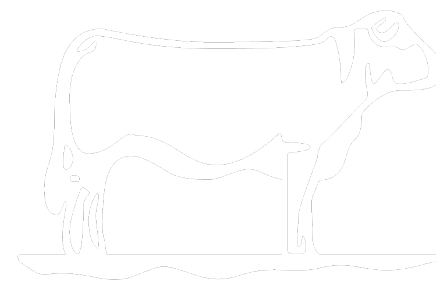


Culture Summary

- No resistance found in...
 - Florfenicol (Resflor and Zeleris)
 - Ceftiofur (Excede, Cevaxel, Excenel)
 - Penicillin G (Depocillin)
- Rare Resistance found in...
 - Enrofloxacin (Baytril) –
 - Only found in one group of 15 sampled.
 - Only found in *Mannheimia hemolytica* in that group.
- Common Resistance with...
 - Tetracycline and Macrolides
 - Important to note that all calves were exposed to one or both of these prior to sampling.

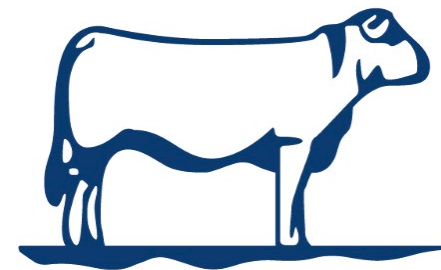


Experior



- Ammonia Reduction
- B-Agonist/Antagonist
 - Currently being accepted by Cargill and able to sell in foreign markets.
- Approximately \$100 net gain
- 8-10% reduction in grade.
- Metzger's has a team ready to answer questions and come on farm to discuss the product.

Elanco



Questions and Feedback?

