

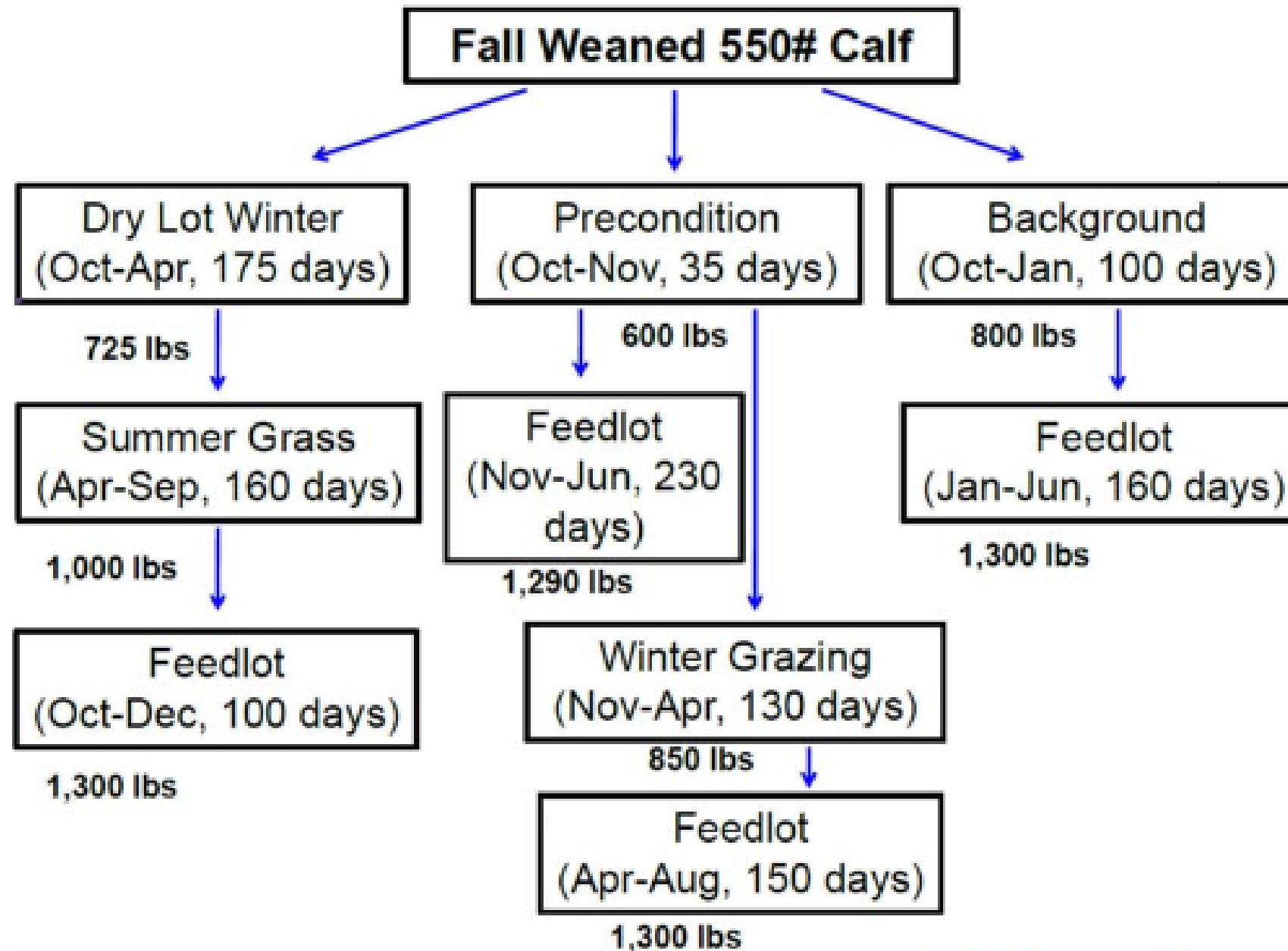
# *Optimal Endpoints For Feeder Cattle*



Department of Agricultural Economics  
<https://farm.unl.edu/contributors/elliott-dennis>

***IN OUR GRIT, OUR GLORY™***

# OPTIMAL DECISIONS VARY GIVEN MARKET SEGMENT



## GEMS + MARKET SIGNALS

Lots of advances here in how genetics, environment, and management affect animal performance

**Match animal performance (genetics + environmental + management) with MARKET SIGNALS!**





**PRICES VARY BY WEIGHT**





# WHERE TO GET THE DATA

The screenshot shows the USDA Agricultural Marketing Service (AMS) website. The header includes the USDA logo, the text "United States Department of Agriculture Agricultural Marketing Service", a search bar, and navigation links: "About AMS", "News and Announcements", "Careers", "For Employees", and "Contact Us". Below the header is a menu with "Home", "Commodities", "Help", "Return To AMS", and "Login". A "Stay connected" section features social media icons for Facebook, Twitter, YouTube, Email, Flickr, RSS, and Instagram. The main content area is divided into three columns: "Commodity" with a list of categories (Bioenergy, Byproducts, Dairy, Feedstuffs, Fiber, Forage, Fruits, Grains, Livestock), "Our News" with two news items and a "Read more" button, and "Announcements" with the text "There is no content yet." At the bottom, there are sections for "Popular Data" and "Popular Reports".

The screenshot shows the "Search By Reports" page on the USDA AMS website. The header is identical to the previous screenshot. Below the header, the breadcrumb "Home / Public Data" is visible. The "Search By Reports" section is highlighted in green. It contains a dropdown menu for "Reports --- [Report: Blue Grass Stockyards Lexington - Replacement Livestock Sale - Lexington, KY ]". Below this, a heading reads "Filters for getting to specific reports!". There are three filter sections: "Commodities" with a dropdown menu labeled "Select commodity", "Offices" with a dropdown menu labeled "Select office", and "Market Types" with a dropdown menu labeled "Select market type". The filters are separated by "OR" text.

# FORWARD CONTRACTS AS A CASH PRICE SIGNAL



	Weighted Average Prices (\$ per cwt.)		
	September	October	November
<i>Steers</i>			
400-500	208.53	207.28	211.06
500-600	178.77	185.60	187.28
600-700	173.06	172.99	174.22
700-800	170.09	169.86	169.37
800-900	160.33	161.16	163.14
<i>Heifers</i>			
400-500	171.83	177.13	187.72
500-600	166.58	166.90	166.34
600-700	161.04	164.33	158.12
700-800	157.75	159.28	-
800-900	151.02	151.35	148.00

# EXPECTED CASH PRICE COMPARISONS



	Weighted Average Prices (\$ per cwt.)			
	Steers (700-899 lbs.)		Heifers (700-899 lbs.)	
	Video Auction	CME Futures	Video Auction	CME Futures
September	165.21	173.50	154.38	164.50
October	165.51	176.90	155.32	168.40
November	166.25	176.75	148.00*	168.75

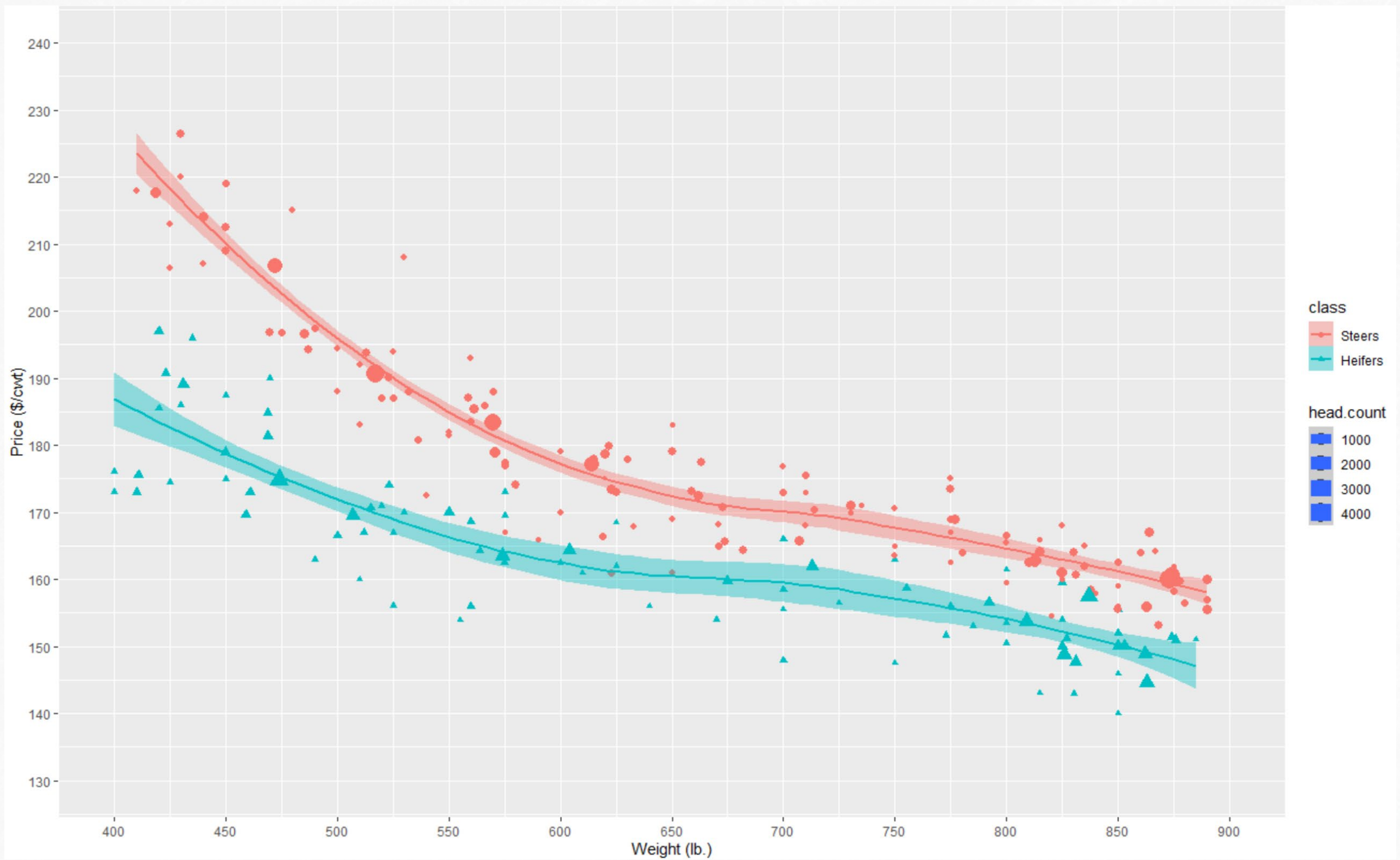
**\* Very few transactions**



# **HOW DO I KNOW IF I SHOULD RETAIN CATTLE POST WEANING?**



# PRICE-WEIGHT SLIDES





**VOG is specific to a year, location, and commodity!**



# BEEF BASIS WEBSITE



**BEEF BASIS**

①

Buy Date: ?

Sell Date: ?

②

State: ?

Location: ?

③

Sex: ?

Frame: ?

Muscling: ?

④

Buy Wt: ?

  
lbs

Sell Wt: ?

  
lbs

Head: ?

  
head

⑤

Feeder Cattle Futures Price: ?

  
/cwt

Corn Futures Price: ?

  
/bu

# TIMING AND SPEED OF GROWTH

**Table 1. Rate of winter gain and length of grazing**

	Slow-Short	Slow-Long	Fast-Short	Fast-Long
<i>Panel (a): Winter Performance</i>				
Gain (lb/d)	0.79	0.79	2.04	2.04
BW	627	627	785	785
<i>Panel (b): Grass Performance</i>				
Gain (lb/d)	2.50	2.01	1.44	1.29
BW	779	866	867	938

Source: Klopfenstein et al. (2020)

Note: Calves are placed at 525 lb.; Winter grazing is 127 days on cornstalks, short summer grazing is 62 days on summer grass, and long summer grazing is 120 days on summer grass; Slow winter grazing is when cattle are fed 2 lb. of distillers grains daily and fast winter grazing is when cattle are fed 5 lb. of distillers grains daily.

## Scenario

Winter cornstalks

November 15, 2023

Valentine, NE



# WINTER: FAST VS SLOW

**SLOW**

Stocker Calf Value of Gain Projections								
Average Daily Gain, lbs. <sup>?</sup>		Earliest Out (sell) Date <sup>?</sup>		Sex <sup>?</sup>		Value of Gain <sup>?</sup>		Total
0.79		March 13, 2024		Steer				
State <sup>?</sup>	Location <sup>?</sup>	Date <sup>?</sup>	Earliest Out (sell) Weight <sup>?</sup>	Expected Price, \$/cwt <sup>?</sup>	Value Per Head, \$ <sup>?</sup>	VOG, \$/Head	VOG, \$/Cwt <sup>?</sup>	Cumulative Value gained, \$/Head <sup>?</sup>
Nebraska	Valentine Livestock Auction	3/13/24	615	283.9	1745.99	0	--	--
NE	Valentine Livestock Auction	3/28/24	627	286.83	1798.42	52.43	437.00	52.43
NE	Valentine Livestock Auction	4/12/24	639	283.15	1809.32	10.9	91.00	63.33
NE	Valentine Livestock Auction	4/27/24	651	286.77	1866.88	57.56	480.00	120.89
NE	Valentine Livestock Auction	5/12/24	662	279.35	1849.28	-17.6	-160.00	103.29
NE	Valentine Livestock Auction	5/27/24	674	294.18	1982.8	133.52	1113.00	236.81
NE	Valentine Livestock Auction	6/11/24	686	289.19	1983.83	1.03	9.00	237.84

**FAST**

Stocker Calf Value of Gain Projections								
Average Daily Gain, lbs. <sup>?</sup>		Earliest Out (sell) Date <sup>?</sup>		Sex <sup>?</sup>		Value of Gain <sup>?</sup>		Total
2.04		March 13, 2024		Steer				
State <sup>?</sup>	Location <sup>?</sup>	Date <sup>?</sup>	Earliest Out (sell) Weight <sup>?</sup>	Expected Price, \$/cwt <sup>?</sup>	Value Per Head, \$ <sup>?</sup>	VOG, \$/Head	VOG, \$/Cwt <sup>?</sup>	Cumulative Value gained, \$/Head <sup>?</sup>
Nebraska	Valentine Livestock Auction	3/13/24	750	248.64	1864.82	0	--	--
NE	Valentine Livestock Auction	3/28/24	781	247.44	1932.48	67.66	218.00	67.66
NE	Valentine Livestock Auction	4/12/24	811	239.93	1945.82	13.34	44.00	81.00
NE	Valentine Livestock Auction	4/27/24	842	240.84	2027.87	82.05	265.00	163.05
NE	Valentine Livestock Auction	5/12/24	872	232.31	2025.78	-2.09	-7.00	160.96
NE	Valentine Livestock Auction	5/27/24	903	241.73	2182.82	157.04	507.00	318.00
NE	Valentine Livestock Auction	6/11/24	934	238.57	2228.27	45.45	147.00	363.45



# SHORT VS LONG GRASS SEASON

## WINTER SLOW SHORT GRASS

Stocker Calf Value of Gain Projections								
Average Daily Gain, lbs. <input type="text" value="2.5"/>		Earliest Out (sell) Date <input type="text" value="May 15, 2024"/>		Sex <input type="text" value="Steer"/>		Value of Gain <input type="text"/>		Total
State <input type="text"/>	Location <input type="text"/>	Date <input type="text"/>	Earliest Out (sell) Weight <input type="text"/>	Expected Price, \$/cwt <input type="text"/>	Value Per Head, \$ <input type="text"/>	VOG, \$/Head	VOG, \$/Cwt <input type="text"/>	Cumulative Value gained, \$/Head <input type="text"/>
Nebraska	Valentine Livestock Auction	5/15/24	745	258.3	1924.34	0	--	--
NE	Valentine Livestock Auction	5/30/24	782	266.54	2084.34	160	432.00	160.00
NE	Valentine Livestock Auction	6/14/24	820	259.88	2131.01	46.67	123.00	206.67
NE	Valentine Livestock Auction	6/29/24	858	252.51	2166.58	35.57	94.00	242.24
NE	Valentine Livestock Auction	7/14/24	895	247.41	2214.33	47.75	129.00	289.99
NE	Valentine Livestock Auction	7/29/24	932	244.83	2281.83	67.5	182.00	357.49
NE	Valentine Livestock Auction	8/13/24	970	246.83	2394.27	112.44	296.00	469.93

## WINTER SLOW LONG GRASS

Stocker Calf Value of Gain Projections								
Average Daily Gain, lbs. <input type="text" value="2.01"/>		Earliest Out (sell) Date <input type="text" value="July 10, 2024"/>		Sex <input type="text" value="Steer"/>		Value of Gain <input type="text"/>		Total
State <input type="text"/>	Location <input type="text"/>	Date <input type="text"/>	Earliest Out (sell) Weight <input type="text"/>	Expected Price, \$/cwt <input type="text"/>	Value Per Head, \$ <input type="text"/>	VOG, \$/Head	VOG, \$/Cwt <input type="text"/>	Cumulative Value gained, \$/Head <input type="text"/>
Nebraska	Valentine Livestock Auction	7/10/24	840	259.28	2177.93	0	--	--
NE	Valentine Livestock Auction	7/25/24	870	252.03	2192.7	14.77	49.00	14.77
NE	Valentine Livestock Auction	8/9/24	900	247.26	2225.34	32.64	109.00	47.41
NE	Valentine Livestock Auction	8/24/24	930	245.33	2281.53	56.19	187.00	103.60
NE	Valentine Livestock Auction	9/8/24	961	247.02	2373.9	92.37	298.00	195.97
NE	Valentine Livestock Auction	9/23/24	991	253.75	2514.68	140.78	469.00	336.75
NE	Valentine Livestock Auction	10/8/24	1021	256.6	2619.86	105.18	351.00	441.93





# **RETAINED OWNERSHIP IN FEEDLOTS**



## REMEMBER OUR WINTER + GRAZING SCENARIO?

**Table 1. Rate of winter gain and length of grazing**

	Slow-Short	Slow-Long	Fast-Short	Fast-Long
<i>Panel (a): Winter Performance</i>				
Gain (lb/d)	0.79	0.79	2.04	2.04
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Gain (lb/d)	2.50	2.01	1.44	1.29
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Source: Klopfenstein et al. (2020)


Note: Calves are placed at 525 lb.; Winter grazing is 127 days on cornstalks, short summer grazing is 62 days on summer grass, and long summer grazing is 120 days on summer grass; Slow winter grazing is when cattle are fed 2 lb. of distillers grains daily and fast winter grazing is when cattle are fed 5 lb. of distillers grains daily.


**What if you chose to retain ownership rather than sell feeder cattle?**




# CALCULATE COST OF RETAINED OWNERSHIP

☰  **BEEF BASIS**   

 **AgRisk** ADVISORS® [www.AGRISKADVISORS.COM](http://www.AGRISKADVISORS.COM)

 **COMING SOON - BeefBasis Subscription Pricing Plans.** [Click here to learn more](#)

## Retained Ownership Calculator

 Learn more about this tool.

### Saved Lots

Select an Option

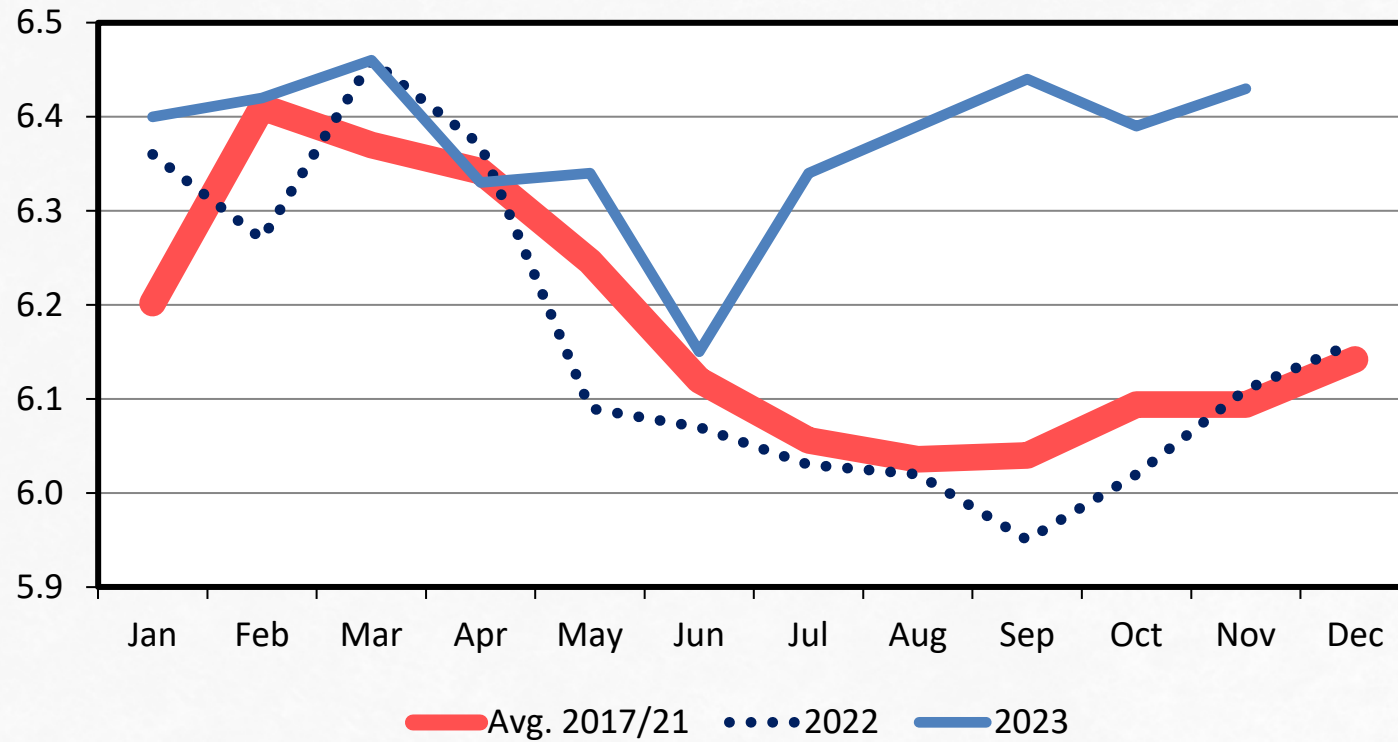
Select



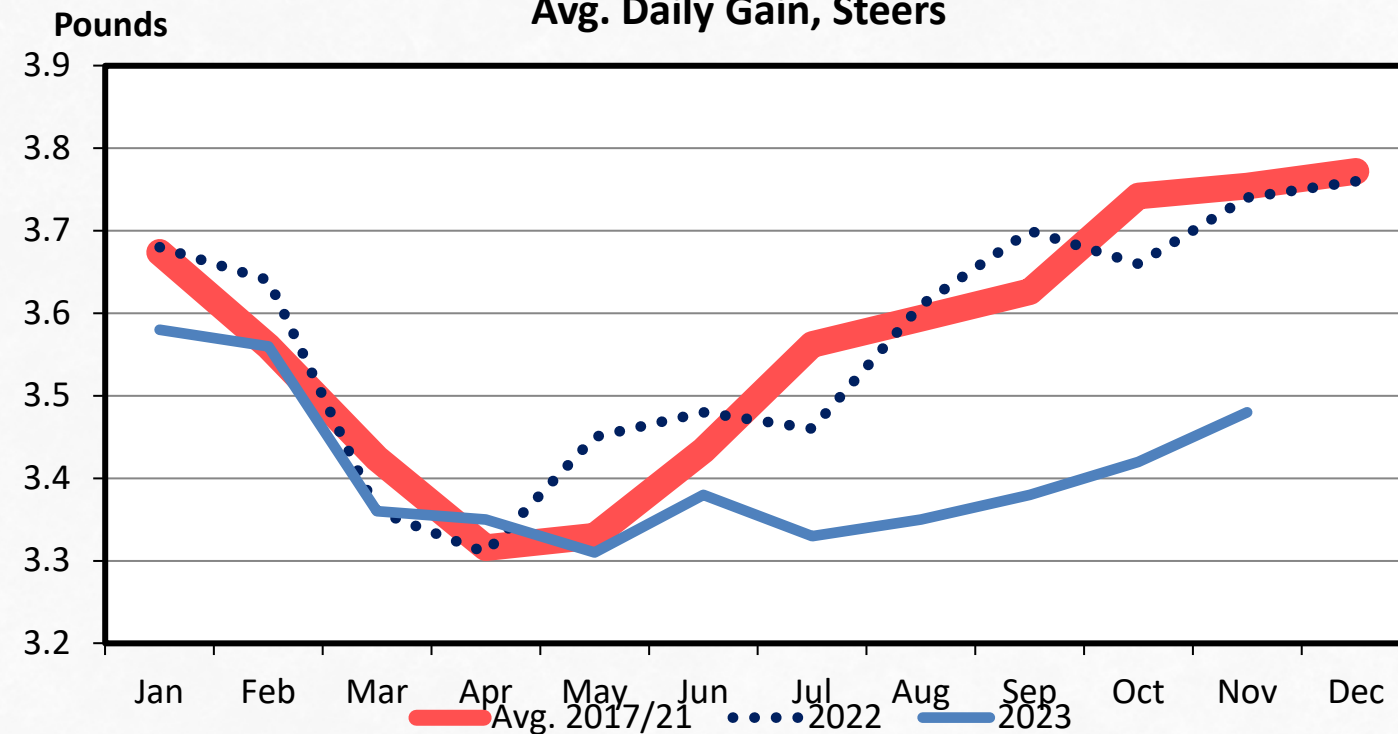




**KANSAS FEEDLOT CLOSEOUTS**  
Pounds of Feed (Dry Basis)  
Per Pound of Gain, Steers



**KANSAS FEEDLOT CLOSEOUTS**  
Avg. Daily Gain, Steers



## SCENARIO SET-UP

### Scenario

- Winter Slow – Summer Long system
- Placed at 866# in a Nebraska Custom Feedyard
- \$252 price per cwt upon entry
- Determined optimal sell weight is 1450
- ADG = 3.35, AFC = 6.30, => DMI = 21
- \$4.40 / bu. corn costs
- 150 miles of trucking
- Live cattle sell price is \$180

# FEEDLOT PERFORMANCE

Item		\$/Head	\$/Lbs Gained
Feed		217.41	0.37
Feed Slippage/Markup:	<input type="text" value="10%"/>	26.09	0.04
Cost of Gain: Feed		243.5	0.42
Yardage:	<input type="text" value="0.25"/>	43.5	0.08
Processing:	<input type="text" value="20"/>	20	0.03
Death Rate, %:	<input type="text" value="1%"/>	23.95	0.04
Interest Rate, %:	<input type="text" value="5.5%"/>	49.15	0.08
Total Cost of Gain		380.1	0.66
Profit, %:	<input type="text" value="0%"/>	0	0.00
Trucking Cost		9.14	0.02
Total Costs		389.24	0.67
Slaughter Value		2610	



# PROFITABILITY SCENARIO

## Profitability Summary

Indifference In Value, \$/Head*	2,220.76	Break-even Slaughter Price, \$/cwt	178.04
Indifference In Value, \$/cwt*	255.26	Profit, \$/Head	28.36
Auction Equivalent Indifference, \$/cwt	255.26	Total Profit, \$	28.36

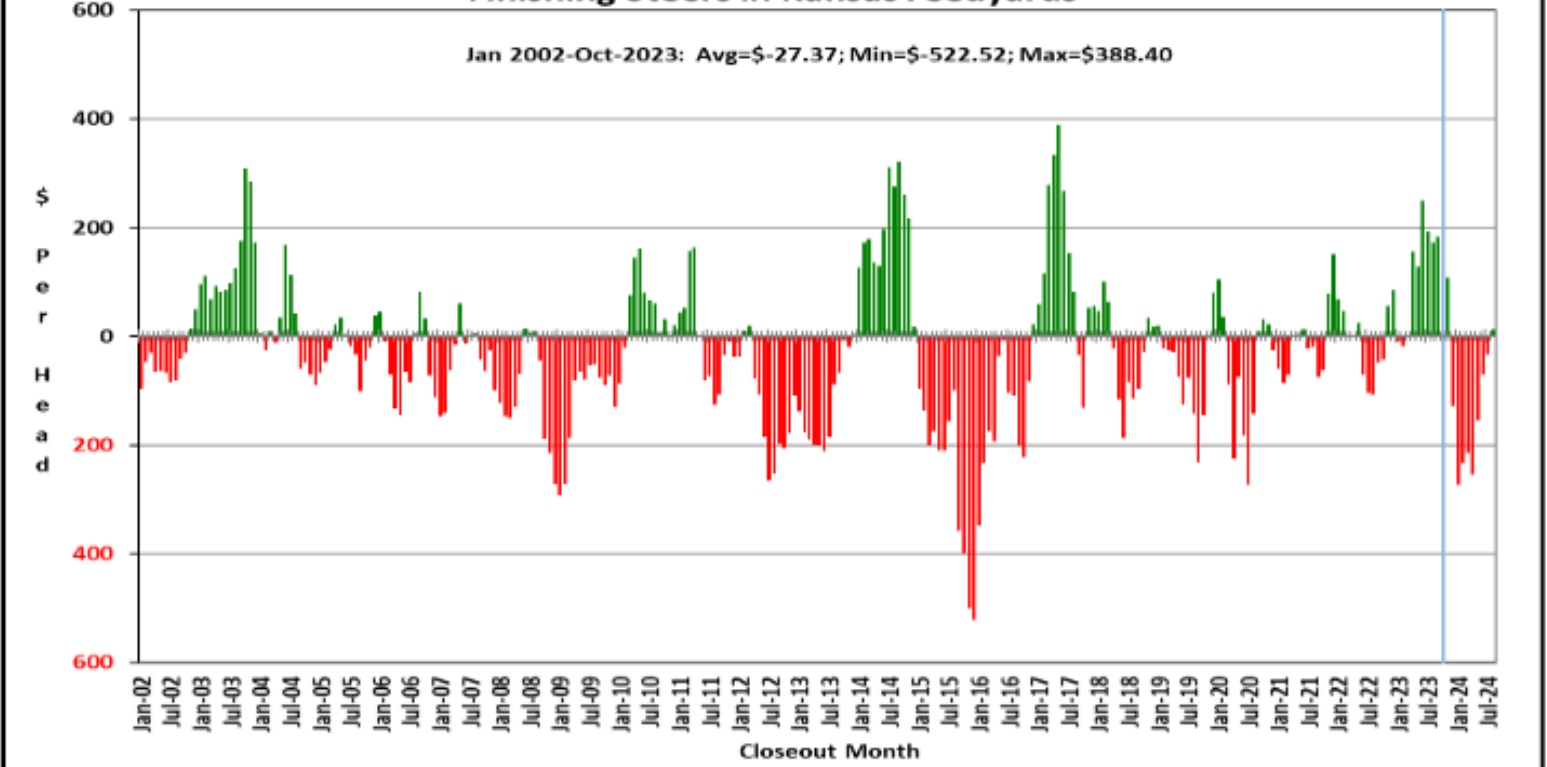
\* Value at which net financial benefit of retained ownership is zero. Break even value less than feedlot entry cost (Input Summary) indicates that retained ownership will increase net revenue



**Use the tool to estimate sensitivity to profitability**

**Retain: (1450 x 1.80) \$2,610**  
**Sell after grass: (870 x 2.52) \$2,192**  
**Sell after winter: (627 x 2.86) \$1,793**

**Figure 1. Historical & Projected Average Net Returns for Finishing Steers in Kansas Feedyards**





**MARKETING DOES NOT PROTECT  
OUTPUT PRICE RISK**

# WHAT IS OPERATIONAL NET PROFIT FOR FEEDER CATTLE?

$$\text{Net Profit} = \left[ \underbrace{\text{Production Sold}}_A * \underbrace{\text{Output Price}}_B \right] - \underbrace{\text{Variable Production Costs}}_C - \text{Fixed Costs}$$

The diagram illustrates the calculation of Operational Net Profit for Feeder Cattle. It shows the formula: Net Profit = (Production Sold \* Output Price) - Variable Production Costs - Fixed Costs. The components are labeled A, B, C, and D. A and B are grouped together under D. C is also grouped under D. Fixed Costs is not grouped under D.

## Types of Subsidized Risk Management Tools

A – **WCRP-YP**

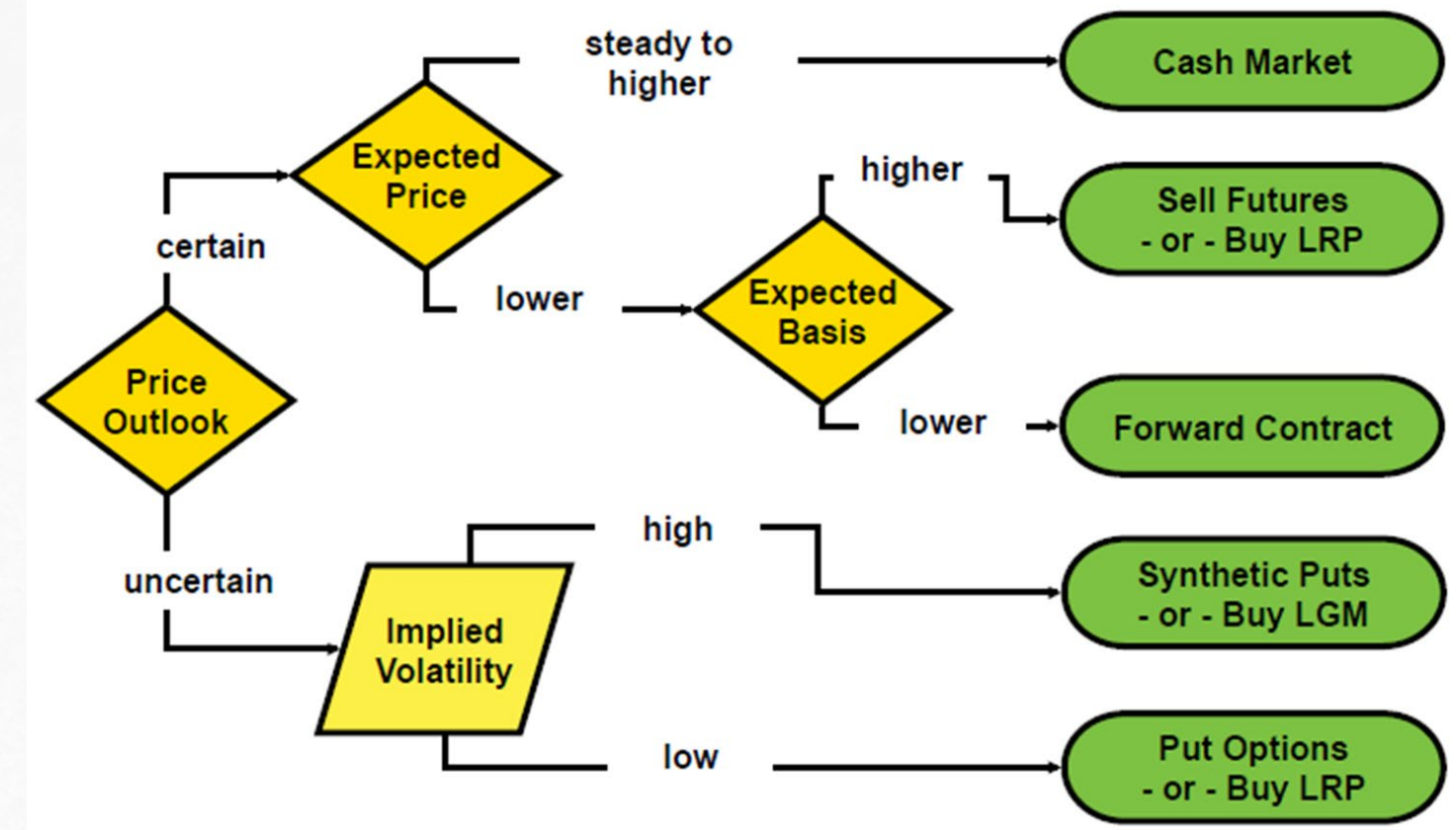
B – LRP, CME Futures, CME Options

C – Pasture Range and Forage Insurance (PRF), Annual Forage (AF)

D – **WCRP-RP, WCRP-RP w/HP exclusion**; Video Contract



# CHOOSING THE CORRECT TOOL



**Success starts by identifying the problem and then using the right tool!!!**

# *Comments and Questions*

## Contact Information

[elliott.dennis@unl.edu](mailto:elliott.dennis@unl.edu)

402-472-2164

## Foundation Account

<https://nufoundation.org/fund/01150800/>

(i.e. “Livestock Marketing & Risk Management”)



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***IN OUR GRIT, OUR GLORY™***

# HEDONIC PRICING MODEL

$$\text{Price}_{it} = \sum V_{ikt} C_{ikt} + \varepsilon_{it}$$

i=lot of calves

k=physical characteristic

t=auction date

$V_{ikt}$ =estimated parameter

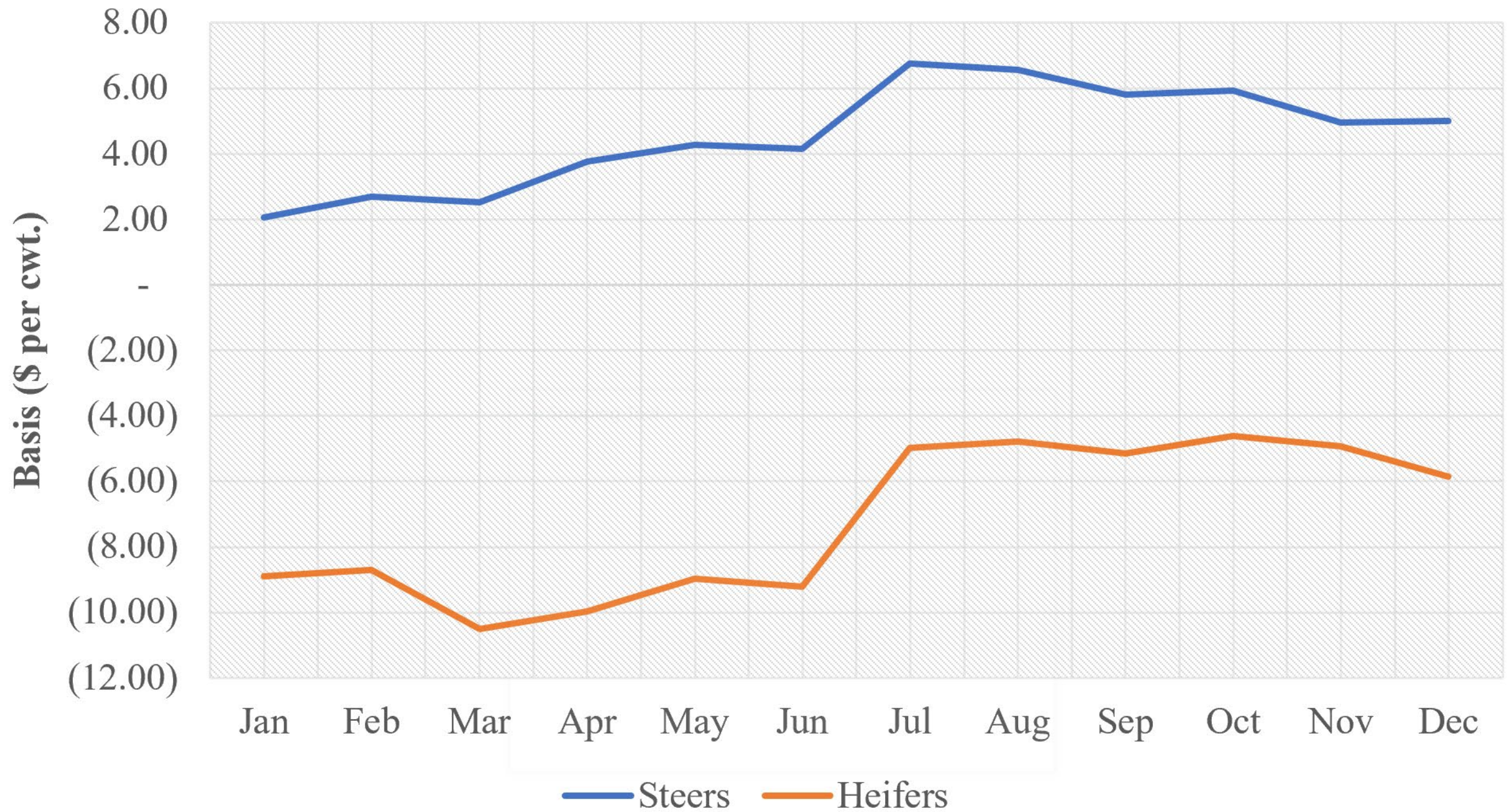
\*You can use this on your own cattle data to get premiums/discounts receiving

\*I can help you set this up if you would like





# HISTORICAL BASIS: 700-899 NE COMBINED





**What drives retention in feed yards?**

**Signals to retain?**

**Risks they take on?**