

Backgrounding / Stocker Profitability Conference



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service



A huge thanks to the Agricultural Development Board for funding this program through the Kentucky Beef Network!



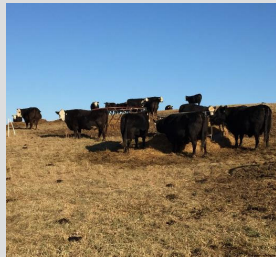
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Using the Futures Market to Estimate Sale Prices

Feeder Cattle Contracts

- 50,000 lbs or 500 cwt
- Medium / Large Frame #1-2 Steers
- Average Weight = 800 lbs.
- Close: Last Thursday of contract month
- Settlement: Cash settled at the Feeder Cattle Index



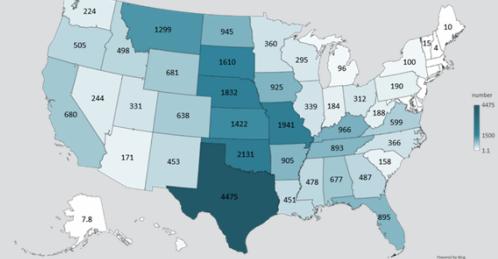
CME® Feeder Cattle Index

- 7 day weighted average of actual feeder cattle sales
- Medium / Large Frame #1-2 steers
 - 700-899 lbs
 - Excludes any thin, fleshy, dairy infl., etc.
- 12-state region: CO, IA, KS, MO, MT, NE, NM, ND, OK, SD, TX, and WY
- Ties future's price to actual cattle sales

What is basis?

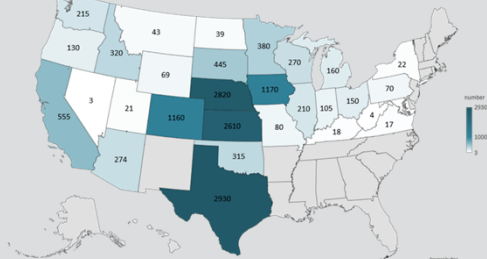
- The difference between local price and futures price
 - Local price – futures price = BASIS
- You can also think of basis as an “Adjustment Factor”
- The way you adjust Future’s prices to estimate local prices
- I prefer “over” and “under”
 - I.e: 800 lb steers in KY are selling \$6 under the April board

BEEF COWS THAT CALVED JANUARY 1, 2022 (1000 Head)



Livestock Marketing Information Center
Data Source: USDA-NASS

CATTLE ON FEED JANUARY 1, 2021 (1000 Head)

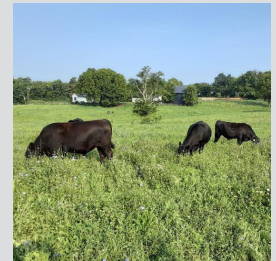


Livestock Marketing Information Center
Data Source: USDA-NASS

What are feeder futures prices really?

- Market expectation of feeder cattle prices in the future
- Where?
 - Major cattle areas, states included in index
 - Are KY feeder cattle prices different than there?

THIS IS BASIS!!



Factors that affect basis...

- Anything that would affect prices in futures and local markets differently
 - Transportation costs
 - Quality differences
 - Lot size
 - Local supply and demand conditions
- How would fuel prices affect KY feeder cattle basis?
- How about weather?

Mid-March CME® Feeder Cattle Futures

MONTH	OFFERS	ASKS	LAST	CHANGE	FEEDER CATTLE	OPEN	HIGH	LOW	OPEN	OFFERS
MAR 2022 (F12)	10	153.400	153.400	+1.750 (+1.15%)	153.275	152.850	153.925	152.800	939	13,003.44 CT 13 Mar 2022
APR 2022 (F12)	10	157.900	157.900	+1.850 (+1.80%)	157.875	156.750	158.600	156.625	4,195	13,044.60 CT 13 Mar 2022
MAY 2022 (F12)	10	163.050	163.050	+1.850 (+1.16%)	163.725	162.825	164.150	161.825	3,964	13,089.59 CT 13 Mar 2022
JUN 2022 (F12)	10	176.875	176.875	+1.200 (+0.68%)	177.875	176.500	177.500	175.650	1,568	13,093.83 CT 13 Mar 2022
SEP 2022 (F12)	10	179.625	179.625	+1.775 (+0.66%)	179.775	179.125	180.000	178.625	319	13,093.88 CT 13 Mar 2022
DEC 2022 (F12)	10	181.950	181.950	+1.525 (+0.83%)	181.825	181.350	181.950	180.800	286	13,093.91 CT 13 Mar 2022
NOV 2022 (F12)	10	182.700	182.700	+1.200 (+0.67%)	182.700	181.800	182.700	181.800	102	13,093.94 CT 13 Mar 2022
JUN 2023 (F13)	10	182.500	182.500	+1.825 (+0.98%)	182.225	182.175	182.500	182.875	43	13,094.04 CT 13 Mar 2022
MAR 2023 (F13)	10	-	-	-	-	-	-	-	0	-

From a recent auction report

Compared to last week: Feeder steer and heifer calves sold steady to 3.00 lower. Yearling steers and heifers sold 3.00 lower. Slaughter cows and bulls steady. Supply included: 50% Feeder Cattle (54% Steers, 34% Heifers, 12% Bulls); 10% Slaughter Cattle (89% Cows, 11% Bulls); 0% Replacement Cattle (100% Bred Cows). Feeder cattle supply over 600 lbs was 52%.

Groups of 20#d or more:

Steers: 74#d 703 lbs 153.00 chark
80#d 704 lbs 140.00 bk/2-3 muscled
59#d 869 lbs 144.25 blk

Heifers: 27#d 510 lbs 149.00 blk/aweaned
20#d 755 lbs 118.25 blk/feisty
25#d 777 lbs 123.25 blk

FEEDER CATTLE

STEERS - Medium and Large 1-2 (Per Cwt / Actual Wt)				
Head	Wt Range	Aug Wt	Price Range	Avg Price
108	703-731	709	139.00-153.00	150.35
7	757	757	135.00	135.00
21	750-784	772	139.00-151.00	149.61
3	805	805	125.00	125.00
7	847	847	140.00	140.00
69	869-892	872	135.00-144.25	142.88
12	900-945	928	118.00-125.50	123.75

Estimating Current Basis

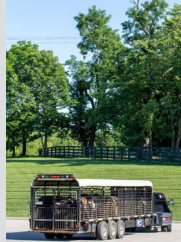
April board is at \$160...

- 800 lb feeder steers selling for \$150
 - \$10 under the April board
- 800 lb feeder heifers selling for \$134
 - \$26 under the April board
- 700 lb steers selling for \$154
 - \$6 under the April board



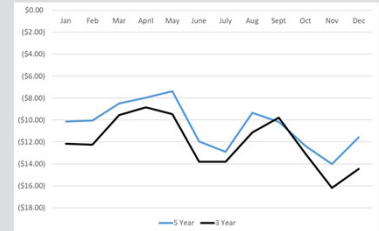
Tracking Basis Over Time

- Tends to be a seasonal component to basis
 - Supply and demand differences, fuel prices, weather, trucking demand
- Basis is often tracked over time
- Current conditions will impact basis
 - Fuel prices, ownership costs, labor



Historical KY Basis: 2017-2021 800 lb ML / 1-2 steers

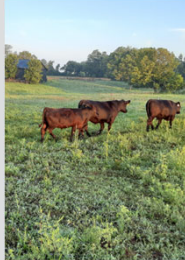
- Spring / summer – stronger basis
- No June / July futures contract
- Fall / Winter – weaker basis



Source: USDA-NASS, Livestock Marketing Information Center. Author calculations

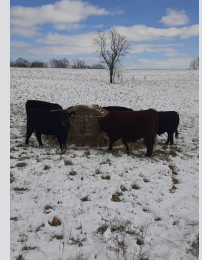
Estimating Sale Price – historical approach

- Price expectation = futures + basis
- Start with futures price for sale month
 - Following month if no futures price
- Add basis estimate
 - May be adding negative number
- Adjust for lot size, quality, etc.
- Futures + basis = cash market price prediction



Understanding Your Unique Basis

- We can only track historical KY average basis
 - Lot size, quality, location vary
- Value in tracking individual basis
- Start with current basis, use history for seasonal adjustment
 - Incorporates current conditions better



Estimating Sale Price from Current Basis Example 1

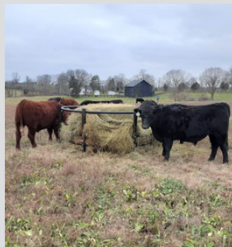
- Load of 800 lb steers to be sold in August
- August futures are \$178 per cwt
- Current basis around \$10 under
 - Current cash minus March futures
- Basis tends to weaken by \$1 from March to August
 - Use \$11 under basis estimate
- Estimate sale price of \$167 per cwt

Estimating Sale Price from Current Basis Example 2

- Load of 800 lb steers to be sold in October
- October futures are \$182 per cwt
- Current basis around \$10 under
 - Current cash minus March futures
- Basis tends to weaken by \$4 from March to October
 - Use \$14 under basis estimate
- Estimate sale price of \$168 per cwt

Final Thoughts on Sale Price Estimation

- Make basis second nature
 - Think basis when you see cattle sell
- Futures are a price forecast
- Basis is an educated guess
 - Be conservative / avoid false precision
- Consider a range of basis estimates in your budget



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