

Fed Cattle Pricing Mechanics

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Objectives

- Discuss packer pricing of fed cattle
- Live weight bids
- Dressed weight or “in the beef” bids
- Basis forward contract bids

General Pricing Process

Meatpackers estimate meat and byproduct sales, subtract slaughter-processing costs and a profit target, and what remains is how much they can pay for fed cattle.

Packer Pricing of Fed Cattle: a Two-Stage Process

- A head buyer determines a daily buy order
- Field buyers execute the buy order as they purchase cattle from feedlots

More Specifically -

Packers begin with a basic profit equation:

$$(1) \text{ Profit} = \text{Total Revenue} - \text{Total Costs}$$

This can be shown as:

$$(2) \text{ Profit/head} = [(\text{Price of Meat} \times \text{Quantity of Meat}) + (\text{Price of Byproducts} \times \text{Quantity of Byproducts})] - [(\text{Price of Livestock} \times \text{Quantity of Livestock}) + \text{Costs of Slaughtering/Fabricating}]$$

Packers Rearrange the Profit Equation into a Bid Price Equation

$$(3) \text{ Bid Price of Fed Cattle} = \frac{[(\text{Price of Boxed Beef} \times \text{Quantity of Boxed Beef}) + (\text{Price of Byproducts} \times \text{Quantity of Byproducts})] - [\text{Cost of Slaughtering/Fabricating} - \text{Profit Target}]}{\text{Quantity of Fed Cattle}}$$

Live Weight Price Bid Example

Cattle Weight		1200 lbs.
STEP 1: Compute Adjusted Boxed Beef Price		
“Projected” Boxed Beef Price (Ch 1-3, 700-850)		\$110.00
Less Discounts:		
% Select x \$ Discount	(50% x \$5)	-\$2.50
% YG4-5 x \$ Discount	(10% x \$10)	-\$1.00
% Light/Heavy x \$ Discount	(10% x \$15)	-\$1.50

Live Weight Price Bid Example

Sum for Adjusted Boxed Beef Price		\$105.00
STEP 2: Convert Boxed Beef Price to Liveweight		
Adjusted Price x Dress %	(\$105.00 x 63.5%)	\$66.68
STEP 3: Add Byproducts Value		
Step 2 + \$8.40/liveweight cwt.	(\$66.68 + \$8.40)	\$75.08
STEP 4: Subtract Processing Costs Plus Profit Target		
\$75.00/Head Cost (Slaughtering - Processing)		
+ \$10.00/Head Profit Target		
= \$85.00/Head	12.0 cwts	(\$75.08 - \$7.08)
Bid Price		\$68.00/cwt.

Dressed or Carcass Weight “in the beef” Bid Example

Cattle Weight	1200 lbs.	
STEP 1: Compute Adjusted Boxed Beef Price		
“Projected” Boxed Beef Price (Ch 1-3, 700-850)	\$110.00	
Less Discounts:		
% Select x \$ Discount (50% x \$5)		-\$2.50
% YG4-5 x \$ Discount (10% x \$10)		-\$1.00
% Light/Heavy x \$ Discount (10% x \$15)		-\$1.50

Dressed or Carcass Weight “in the beef” Bid Example

Sum for Adjusted Boxed Beef Price		\$105.00
STEP 2: Add Byproducts Value (on a dressed weight basis)		
Step 1 + \$8.40 / .635 dressing %	(\$105.00 + \$13.23)	\$118.23
STEP 3: Subtract Cost Plus Profit Target (on a dressed weight basis)		
\$75.00/Head Cost (Slaughtering - Processing)		
+ \$10.00/Head Profit Target		
= \$85.00/Head / 7.62 cwt	(\$118.23 - \$11.15)	\$107.08
Bid Price		\$107.08/carcass cwt.

Basis Forward Contract Bid Example

“Expected” Cattle Weight (October)	1200 lbs.
ASSUME AVERAGE QUALITY CATTLE	
STEP 1: Estimate an October Basis	
“Estimated” Average October Basis	-\$0.55
STEP 2: Subtract a Risk Transfer Premium	
Step 1 - \$1.00	-\$1.55
Basis Bid (from October Live Cattle Futures)	-\$1.55/cwt.
STEP 3: Feeder Picks the Live Cattle Futures Price	
“Estimated” Highest October Live Cattle Futures	\$77.00
Sale Price (\$77.00 - \$1.55)	\$75.45/cwt.

Conclusions

- Often we hear that the best offense is a good defense
- Marketing means understanding your customer and his/her business
- Therefore, cattle feeders must understand how packers’ price cattle
- The pricing process, while simplified here, is basically a straight-forward process