



## Cost-of-Gain

- Often misused.
- Why is this?

**Cost-of-Gain =**

$$\frac{\text{Non-Calf Costs}}{\text{Lbs Added}}$$

### Example:

- Buy 500 lb calf
- Sell at 800 lbs
- \$300 non-calf costs
- Sale price \$1.40/lb

$$\text{COG} = \$300/300 \text{ lb} = \$1.00/\text{lb}$$

### Cost-of-Gain Example:

\$1.00 (COG) < \$1.40 Sale Price  
→ We can make a profit

### **Wrong!**

Only true if no price slide  
Need to compare:  
Cost-of-Gain  
to  
Value-of-Gain (VOG)

#### **Value-of-Gain Examples \$1.40 Sale Price**

Buy Price Calf	Value-of-Gain
\$1.40	\$1.40
\$1.50	\$1.23
\$1.60	\$1.07
\$1.70	\$0.90
\$1.80	\$0.73

*Buy 500 lb calf and sell 800 lb calf*

### **Cost-of-Gain (COG) Changes by Weight**

*Let's look at examples*

Feed Cost of Gain		
Weight	Feed Cost Last 50 lbs Gain	Feed Cost of Gain
700	–	–
750	\$39	\$0.78
800	\$42	\$0.84
850	\$45	\$0.90
900	\$48	\$0.96
950	\$50	\$1.00

Assumes 1.4% bodyweight corn gluten-soyhulls at \$280/ton and 1.45% bodyweight hay at \$75/ton. 2.3 lbs per day gain.

## Total Cost of Gain

Need to add other marginal costs

- Interest
- Mineral, water, etc.
- Labor to feed?

### Interest (example):

\$1000 x 5% interest = \$50 per year

For 1 Day:

→ \$50/365 days = \$.14 per day

### Water (example):

\$5.00 per 1000 gallons  
= \$5.00/1000 gallons = \$.005/gallon

10 gallons/day/head:

→ \$.005/gal x 10 gal = \$.05/day

**Mineral (example):**

\$7.50 per head for 150 days  
=  $\$7.50/150 = \$.05/\text{day}$

**Miscellaneous (example):**

\$5.00 for 150 days  
=  $\$5.00/150 = \$.03/\text{day}$

**Other Cost of Gain:**

Interest	\$.14/day
Water	\$.05/day
Mineral	\$.05/day
Other	<u>\$.03/day</u>
<b>Total</b>	<b>\$.27/day</b>

**Other Cost of Gain:**

Interest	\$.14/day
Water	\$.00/day
Mineral	\$.05/day
Other	<u>\$.03/day</u>
<b>Total</b>	<b>\$.22/day</b>

## Other Cost of Gain

Assume \$.23/day

Convert to Pound of Gain:

→ 2.3 lbs per day gain

$$.23/2.3 = $.10$  to add to Feed GOG

Total Cost of Gain			
Weight	Feed Cost Last 50 lbs Gain	Feed Cost of Gain	Total Cost of Gain
700			
750	\$39	\$0.78	\$0.88
800	\$42	\$0.84	\$0.94
850	\$45	\$0.90	\$1.00
900	\$48	\$0.96	\$1.06
950	\$50	\$1.00	\$1.10

Assumes 1.4% bodyweight corn gluten-soyhulls at \$280/ton and 1.45% bodyweight hay at \$60/ton. 2.3 lbs per day gain. Other costs of \$.23/day

## Value of Gain Price Slide Effect

Value of Additional Gain		\$4 Slide/100wt	
Weight	Sale Price	Total Revenue	Value of Gain (per lb) Last 50 lbs
700	\$1.44	\$1,008	-
750	\$1.42	\$1,065	\$1.14
800	\$1.40	\$1,120	\$1.10
850	\$1.38	\$1,173	\$1.06
900	\$1.36	\$1,224	\$1.02
950	\$1.34	\$1,273	\$0.98

Value of Additional Gain = Total value (current wt) less total value (previous wt) divided by added lbs.

### Value of Gain Calculation

$$\begin{aligned} \text{VOG} &= \frac{\$1065 - \$1008}{50 \text{ lbs gain}} \\ &= \$1.14 \end{aligned}$$

### Value of Gain Calculation

$$\begin{aligned} \text{VOG} &= \frac{\$1120 - \$1065}{50 \text{ lbs gain}} \\ &= \$1.10 \end{aligned}$$

Value of Additional Gain \$6 Slide/100wt			
Weight	Sale Price	Total Revenue	Value of Gain (per lb) Last 50 lbs
700	\$1.46	\$1,022	-
750	\$1.43	\$1,073	\$1.02
800	\$1.40	\$1,120	\$0.94
850	\$1.37	\$1,165	\$0.90
900	\$1.34	\$1,206	\$0.82
950	\$1.31	\$1,244	\$0.76

*Value of Additional Gain = Total value (current wt) less total value (previous wt) divided by added lbs.*

Value of Additional Gain \$2 Slide/100wt			
Weight	Sale Price	Total Revenue	Value of Gain (per lb) Last 50 lbs
700	\$1.42	\$994	-
750	\$1.41	\$1,058	\$1.27
800	\$1.40	\$1,120	\$1.25
850	\$1.39	\$1,182	\$1.23
900	\$1.38	\$1,242	\$1.21
950	\$1.37	\$1,302	\$1.19

*Value of Additional Gain = Total value (current wt) less total value (previous wt) divided by added lbs.*

## Comparing Value of Gain Cost of Gain

<b>Deciding When to Sell</b>		
<b>Value of Gain vs. Total Cost of Gain</b>		
<b>\$4 price slide 100wt; \$1.40/lb 800 lb steer</b>		
Weight	Value of Gain (last 50 lbs)	Total Cost of Gain (last 50 lbs)
700	–	–
750	\$1.14	\$0.88
800	\$1.10	\$0.94
850	\$1.06	\$1.00
900	\$1.02	\$1.06
950	\$0.98	\$1.10

*Assumes 1.4% bodyweight corn gluten-soyhulls at \$280/ton and 1.45% bodyweight hay at \$75/ton. Other costs of \$.23/day*

<b>Deciding When to Sell</b>		
<b>Value of Gain vs. Total Cost of Gain</b>		
<b>\$3 price slide 100wt; \$1.40/lb 800 lb steer</b>		
Weight	Value of Gain (last 50 lbs)	Total Cost of Gain (last 50 lbs)
700	–	–
750	\$1.20	\$0.88
800	\$1.18	\$0.94
850	\$1.14	\$1.00
900	\$1.12	\$1.06
950	\$1.08	\$1.10

*Assumes 1.4% bodyweight corn gluten-soyhulls at \$280/ton and 1.45% bodyweight hay at \$75/ton. Other costs of \$.23/day*

<b>Deciding When to Sell</b>		
<b>Value of Gain vs. Total Cost of Gain</b>		
<b>\$3 price slide 100wt; \$1.60/lb 800 lb steer</b>		
Weight	Value of Gain (last 50 lbs)	Total Cost of Gain (last 50 lbs)
700	–	–
750	\$1.40	\$0.88
800	\$1.38	\$0.94
850	\$1.34	\$1.00
900	\$1.32	\$1.06
950	\$1.28	\$1.10

*Assumes 1.4% bodyweight corn gluten-soyhulls at \$280/ton and 1.45% bodyweight hay at \$75/ton. Other costs of \$.23/day*

Deciding When to Sell		
Value of Gain vs. Total Cost of Gain		
\$4 price slide 100wt; \$1.60/lb 800 lb steer		
Weight	Value of Gain (last 50 lbs)	Total Cost of Gain (last 50 lbs)
700	—	—
750	\$1.34	\$0.88
800	\$1.30	\$0.94
850	\$1.26	\$1.00
900	\$1.22	\$1.06
950	\$1.18	\$1.10

*Assumes 1.4% bodyweight corn gluten-soyhulls at \$280/ton and 1.45% bodyweight hay at \$75/ton. Other costs of \$.23/day*

