

# Cow/Calf Economic Considerations for the Upcoming Year (and beyond)

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2009 KOMA BEEF CATTLE CONFERENCE



January 8, 2009  
 Community Center, Labette County Fairgrounds  
 Oswego, Kansas



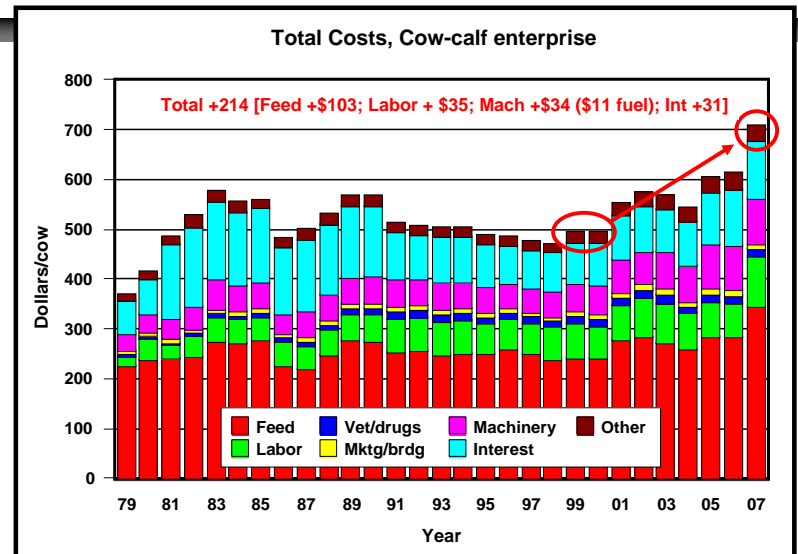
## Outline of presentation...

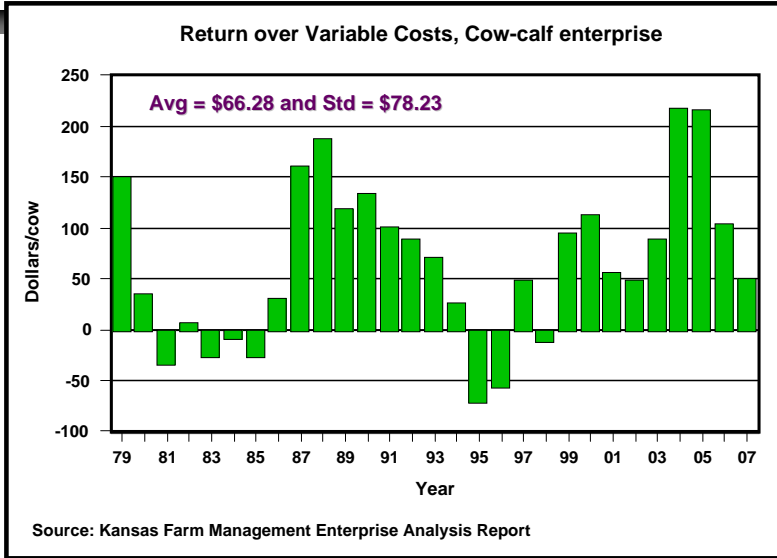
- **Cost-returns for cow-calf enterprise**
  - Historical costs and returns
  - Expected costs and returns for 2008 and 2009
- **Differences between high- and low-profit operators**
- **Marketing considerations / factors impacting prices**

## Historical Cost-Returns for Cow/Calf Enterprise

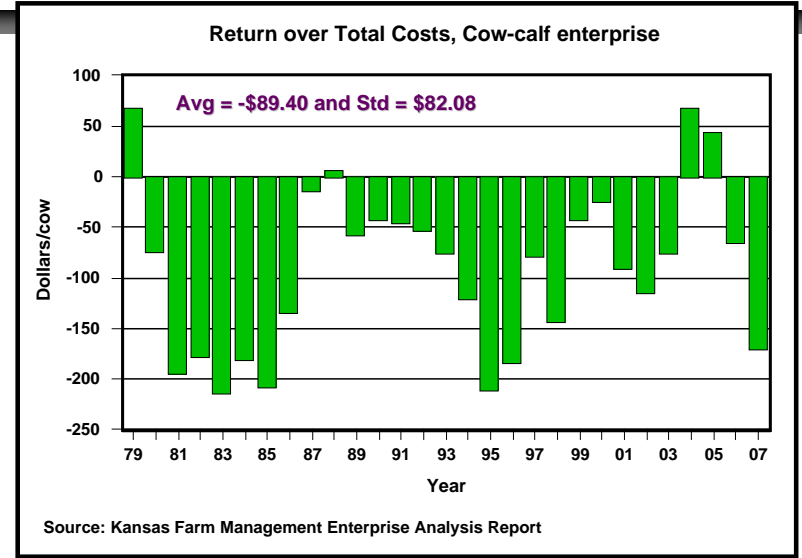
- **KFMA enterprise analysis**
  - Beef cow-calf averages, 1979-2007 (93 to 258 farms)
  - Dollars/cow and dollars/cwt
- **Variable costs:** hired labor, machinery repair, interest paid, feed purchased, machine hire-lease, farm org. fees/travel/pub, vet medicine/drugs, marketing/breeding, gas/fuel/oil, personal property tax, general farm insurance, utilities, auto expense
- **Fixed costs:** depreciation, real estate tax, unpaid operator labor, interest charge

Costs have increased ~\$30/cow/year for the last seven years...

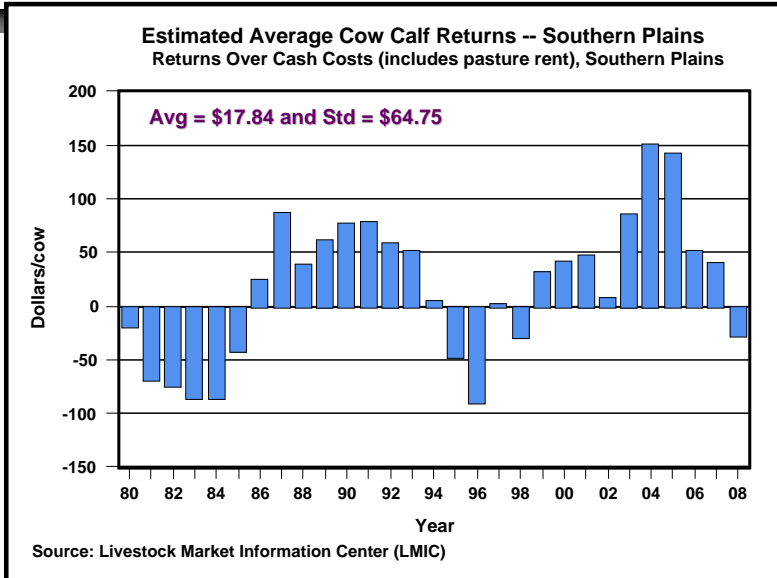




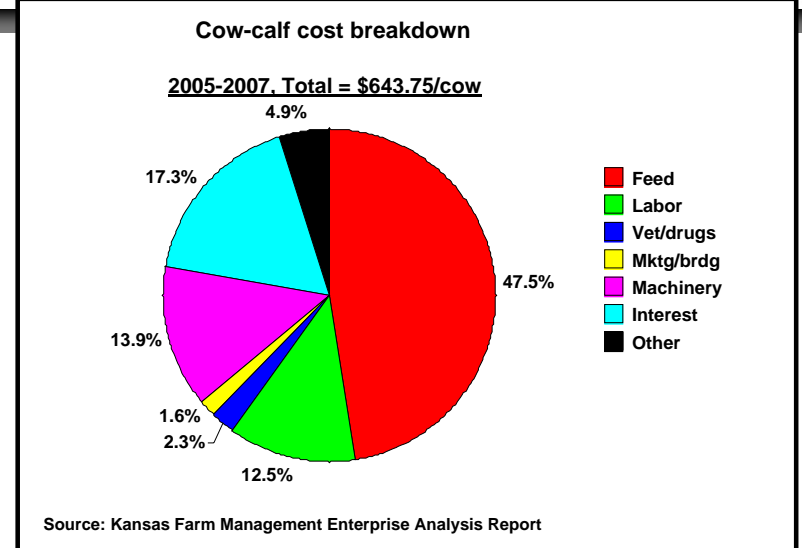
~\$156 difference between averages of the "good" third and "bad" third years.



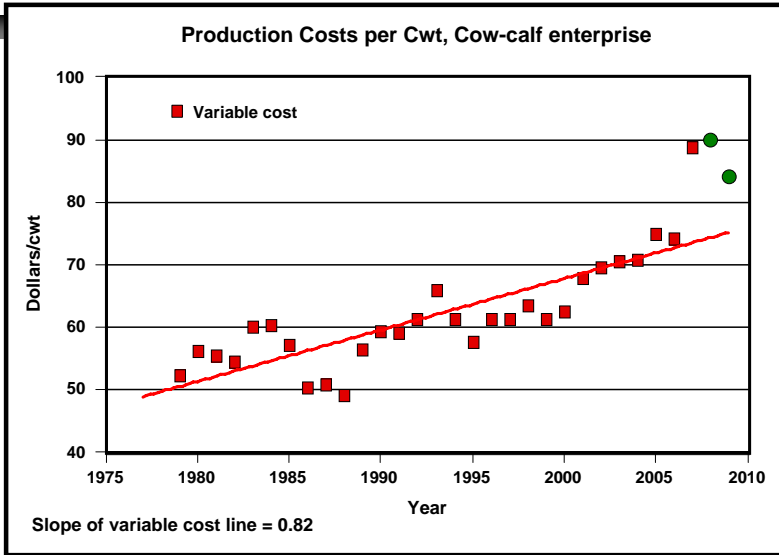
No return to management – what do we expect this to be?



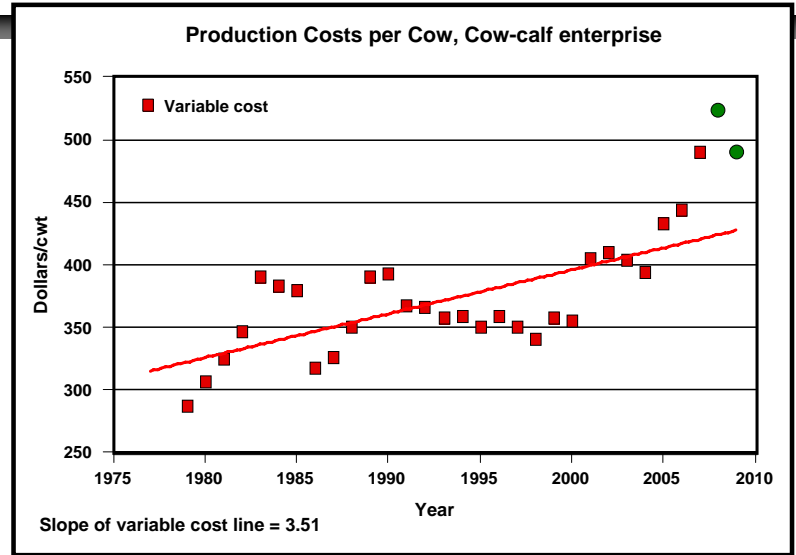
Pasture/feed is major cost, but other things matter too...



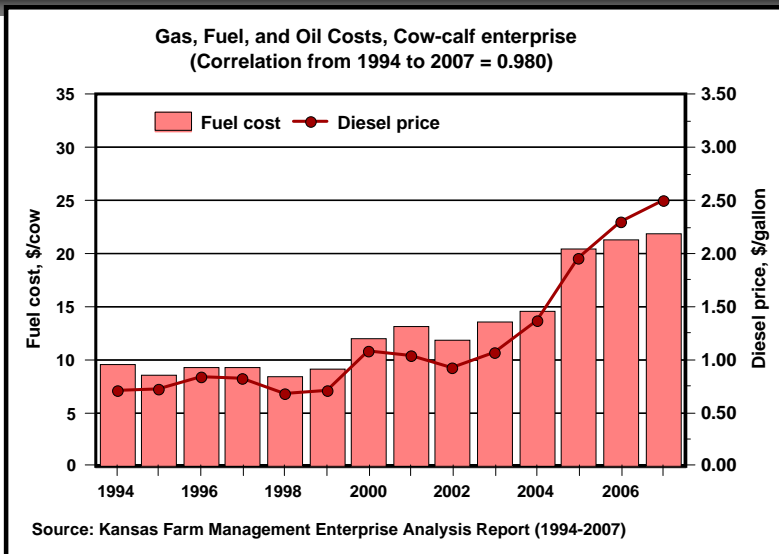
2007 was major deviation from trend...



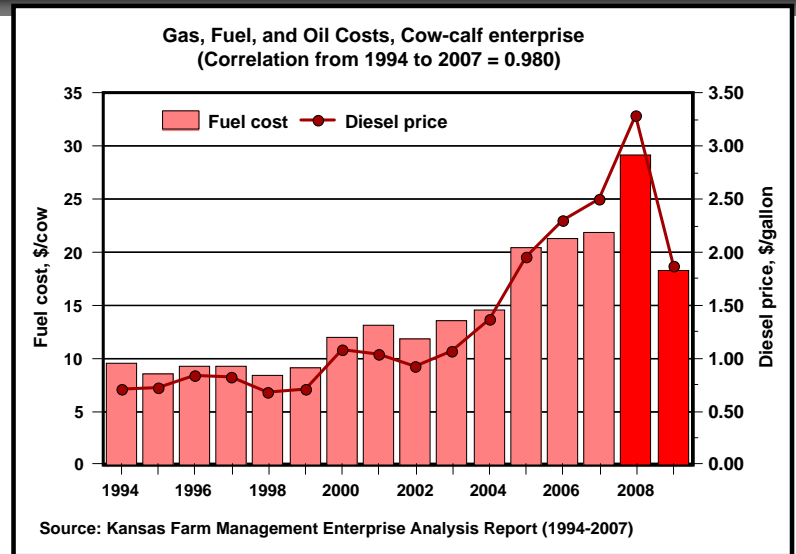
2007 was major deviation from trend...



Fuel costs/cow and price/gal are highly correlated...

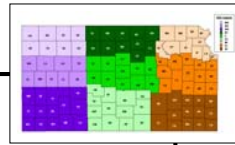


2008 has been tough, but things look much better for 2009...

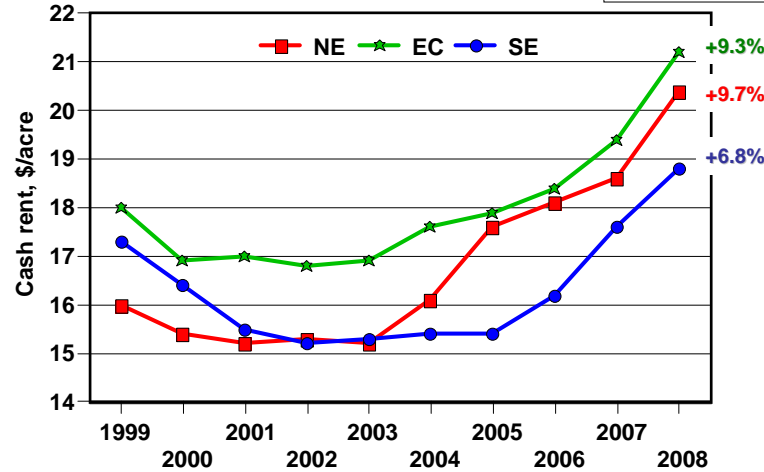


2009 diesel price forecasts based on 12/31/08 crude oil futures prices.

## Agricultural Land Values & Rents Survey



### Eastern KS Cash Rent for Pasture



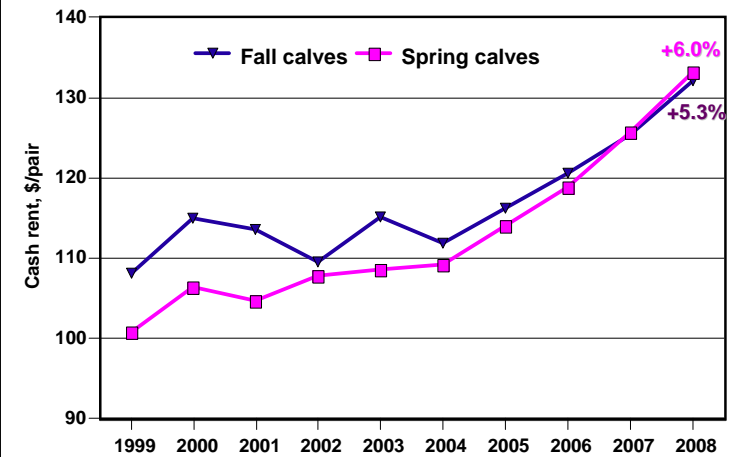
Source: Kansas Agricultural Statistics

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## Bluestem Pasture Report



### Flinthills Cash Rent for Pasture -- Cow-calf pairs



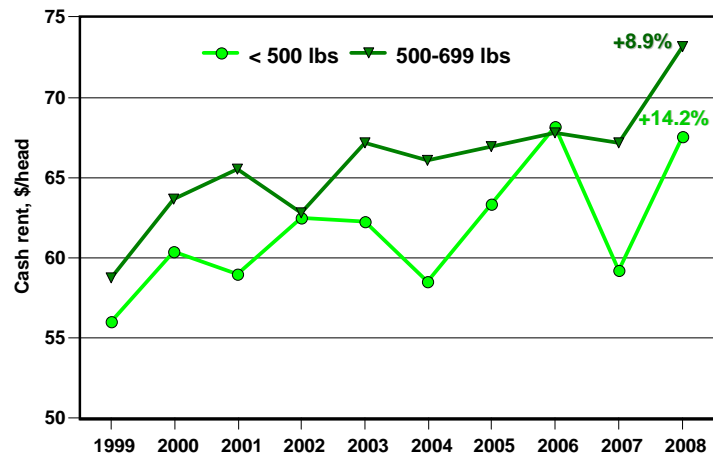
Source: Kansas Agricultural Statistics

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## Bluestem Pasture Report



### Flinthills Cash Rent for Pasture -- Stockers



Source: Kansas Agricultural Statistics

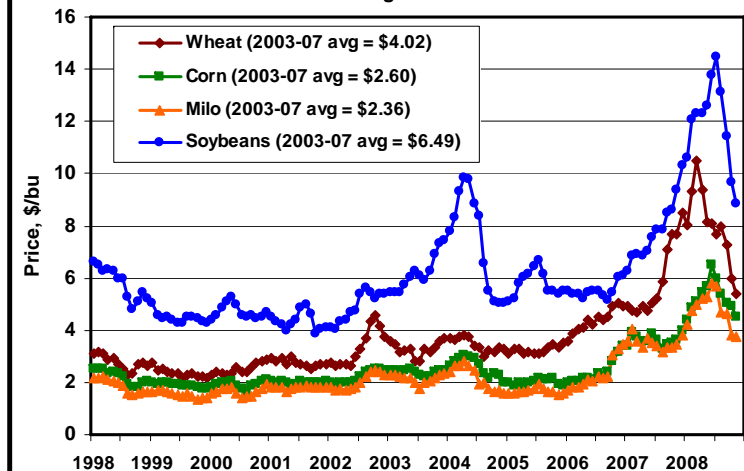
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Crop prices have dropped substantially, but they are still high by historical standards...



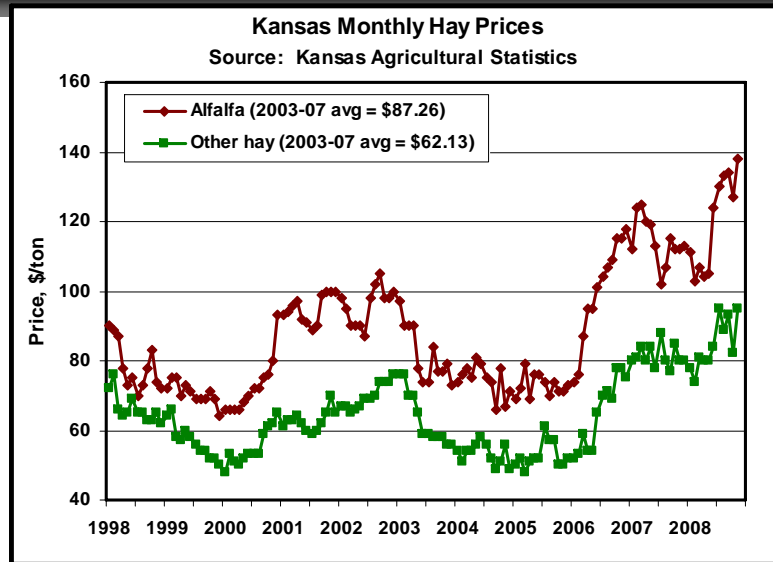
### Kansas Monthly Grain Prices

Source: Kansas Agricultural Statistics



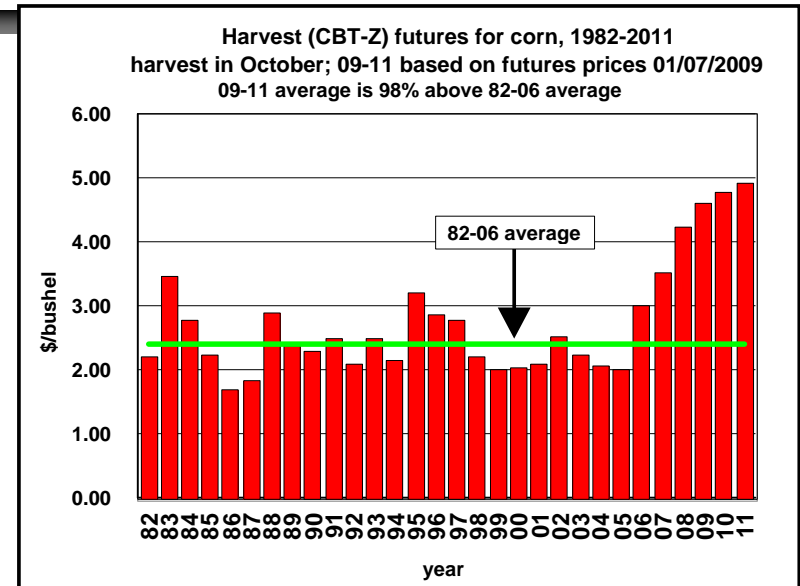
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## Strength in crop markets impacts hay prices...



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## How long will strong crop prices stick around?



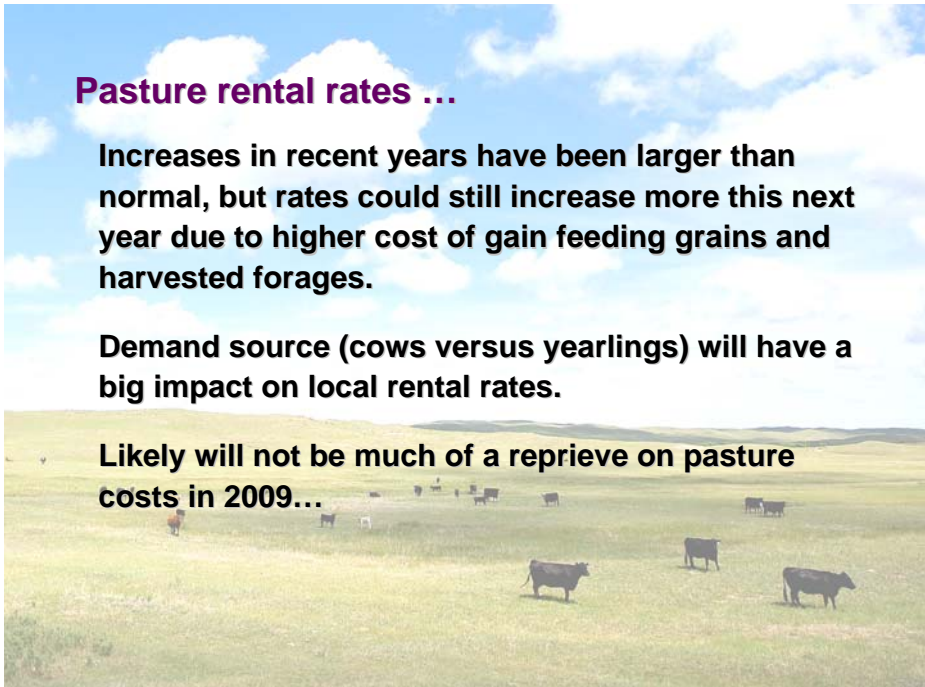
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## Pasture rental rates ...

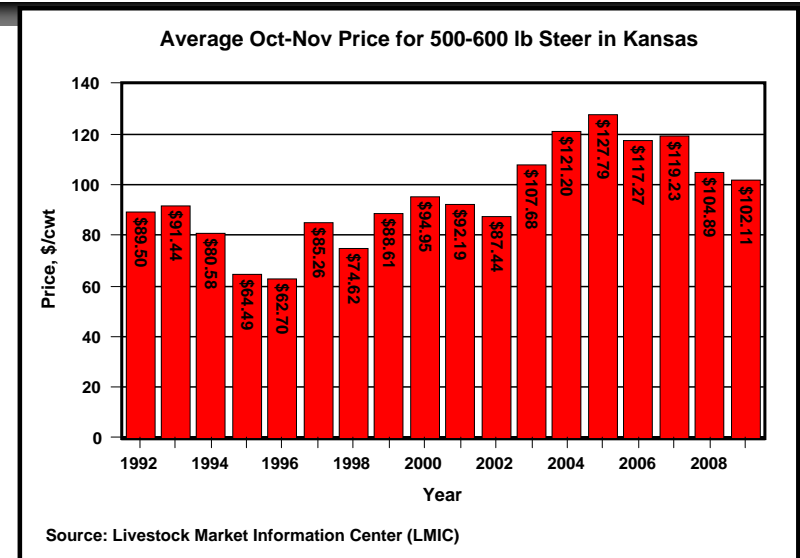
Increases in recent years have been larger than normal, but rates could still increase more this next year due to higher cost of gain feeding grains and harvested forages.

Demand source (cows versus yearlings) will have a big impact on local rental rates.

Likely will not be much of a reprieve on pasture costs in 2009...

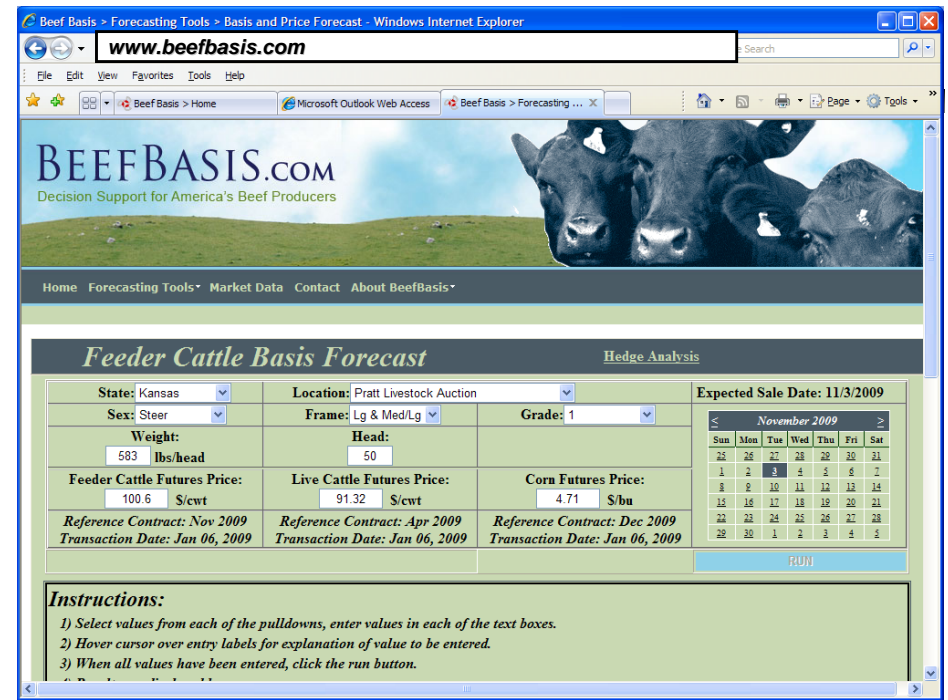


## Calf price down considerably in 2008 compared to 2007, and down just slightly more in 2009\*



\* 2009 forecast based on Nov 2009 feeder cattle futures of \$98.50 adjusted for basis

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### Returns over variable costs for 2008 and 2009...



#### Return over Variable Costs, \$/cow

	KFMA*	LMIC
1980-07 avg	\$63.29	\$19.44
1980-07 min	(\$71.52)	(\$89.55)
1980-07 max	\$218.55	\$150.48
2005	\$216.12	\$142.60
2006	\$104.86	\$51.53
2007	\$49.76	\$40.09
2008	(\$7.65) /F	(\$27.16)
2009	\$12.13 /F	\$21.96 /F

/F = Forecast

\* KFMA forecasts for 2008 and 2009 by Dhuyvetter



### Cow/Calf Enterprise Cost>Returns – Variability between producers



## Cost-return information ...



### KFMA enterprise analysis

- Beef cow-calf farm-level data
- 2003-2007 – minimum of 3-yr average
- 67 farms with avg weaning weight 450-650 lbs
- Sorted by return to management (i.e., return over total costs)



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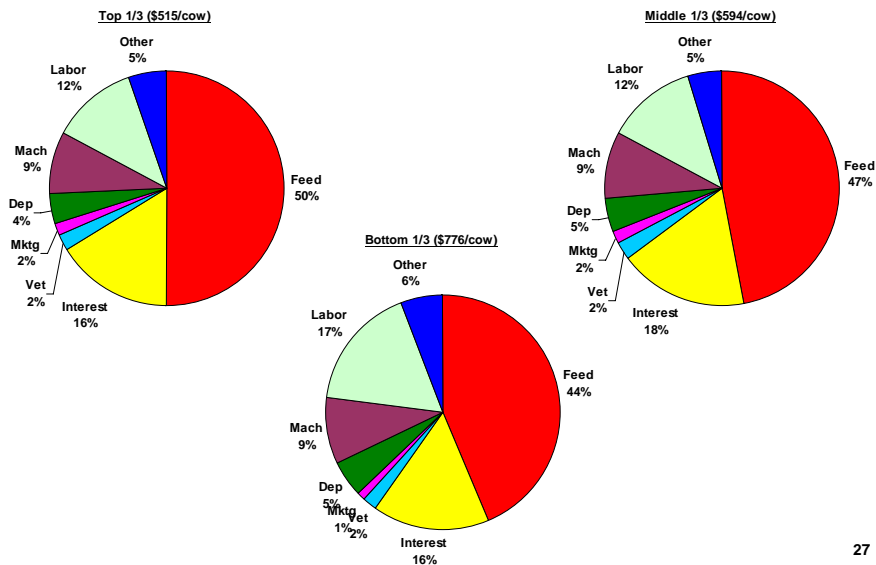
## Kansas Farm Management Association Enterprise Summaries



	Profit Category			Difference between	
	High 1/3	Mid 1/3	Low 1/3	High 1/3 and Low 1/3	
	Head / \$	Head / \$	Head / \$	Absolute	%
Number of Farms	22	23	22		
Number of Cows in Herd	168	118	74	94	127%
Number of Calves Sold	154	109	67	86	128%
Weight of Calves Sold	572	560	550	23	4%
Calf Sales Price / Cwt	\$107.24	\$108.01	\$106.97	\$0.27	0%
<b>Gross Income</b>	<b>\$582.04</b>	<b>\$543.33</b>	<b>\$491.73</b>	<b>\$90.31</b>	<b>18%</b>
Feed	\$256.90	\$279.83	\$327.50	-\$70.60	-22%
Interest	\$81.58	\$104.18	\$122.00	-\$40.43	-33%
Vet Medicine / Drugs	\$12.15	\$14.38	\$15.34	-\$3.19	-21%
Livestock Marketing / Breeding	\$8.37	\$9.76	\$8.61	-\$0.23	-3%
Depreciation	\$21.76	\$30.89	\$40.05	-\$18.29	-46%
Machinery	\$45.31	\$53.89	\$70.99	-\$25.68	-36%
Labor	\$61.33	\$72.30	\$140.76	-\$79.43	-56%
Other	\$27.57	\$28.28	\$50.82	-\$23.25	-46%
<b>Total Cost</b>	<b>\$514.97</b>	<b>\$593.51</b>	<b>\$776.06</b>	<b>-\$261.09</b>	<b>-34%</b>
<b>Net Return to Management</b>	<b>\$67.07</b>	<b>-\$50.18</b>	<b>-\$284.33</b>	<b>\$351.40</b>	

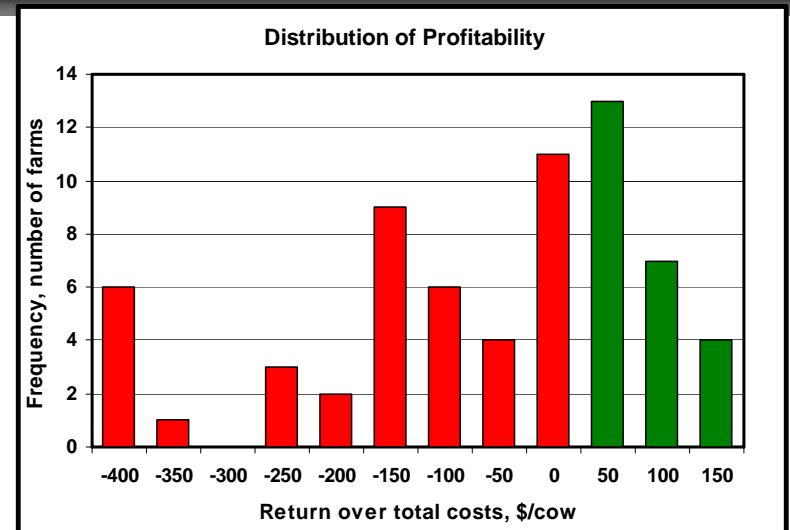
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## 3-Year avg: Cost breakdown



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## Average profitability distribution



Average returns for individual producers (-\$88.60): 37% > \$0 and 63% < \$0

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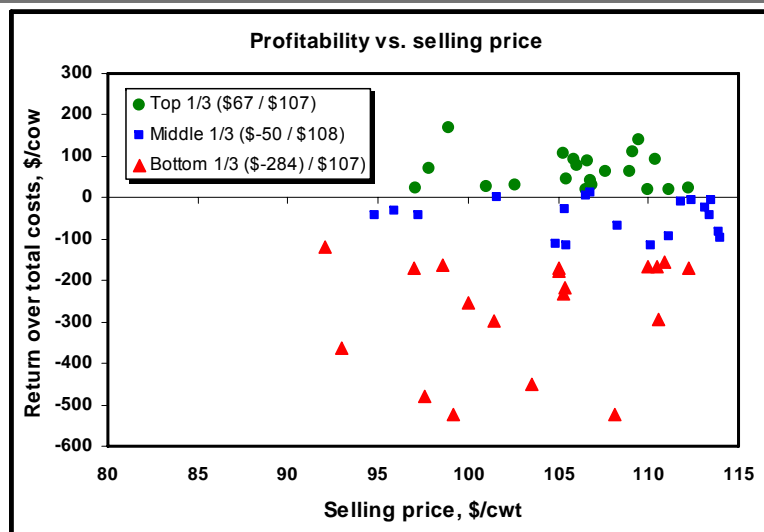
## What factors are driving these profitability differences?

- Selling price?
- Selling weight?
- Costs?
- Other factors?



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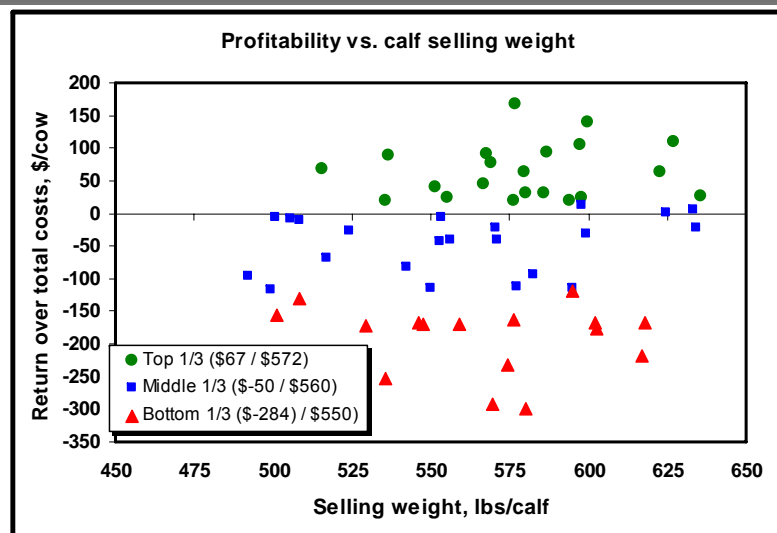
## 3-Year avg: Profitability versus selling price



Correlation: 0.09

30

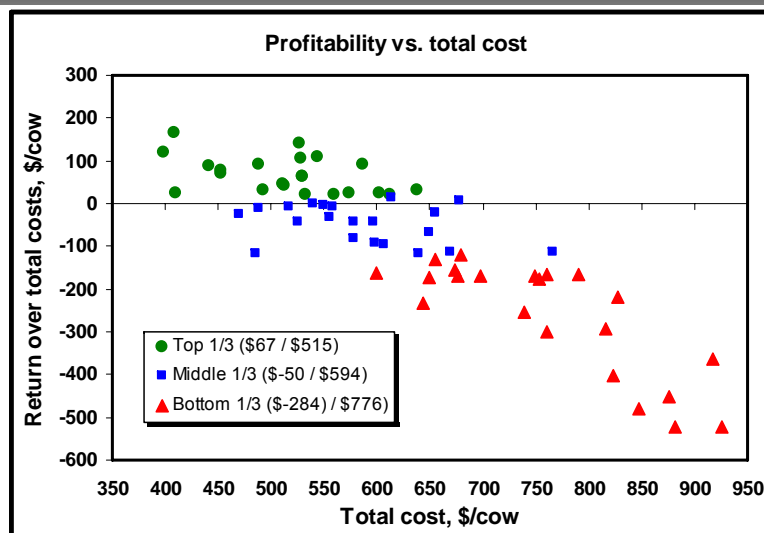
## 3-Year avg: Profitability versus selling weight



Correlation: 0.29

31

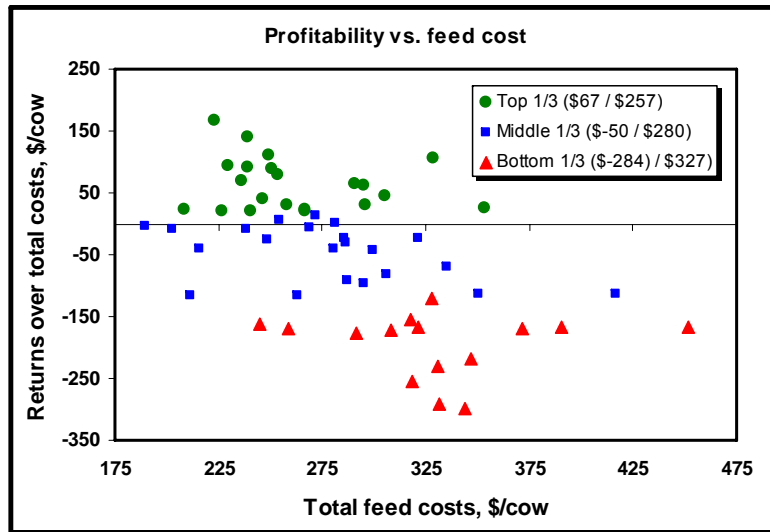
## 3-Year avg: Profitability versus costs



Correlation: -0.89

32

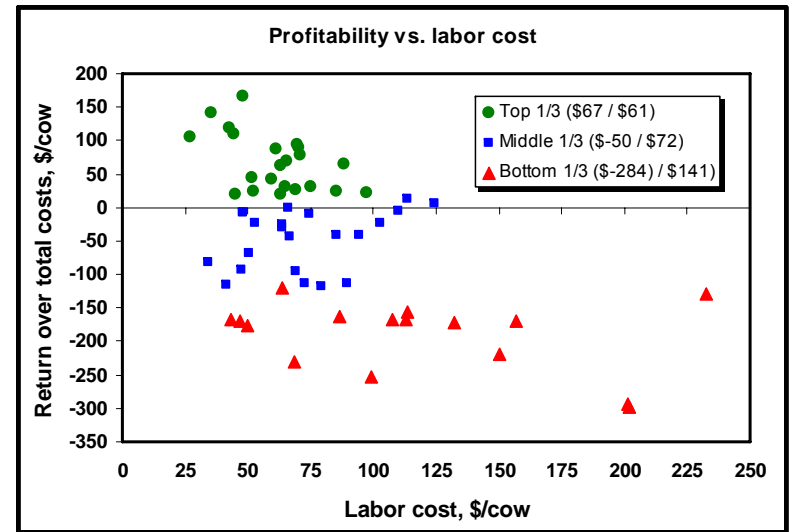
### 3-Year avg: Profitability versus feed cost



Correlation: -0.54

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### 3-Year avg: Profitability versus labor cost



Correlation: -0.66

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### Costs differences are important ...



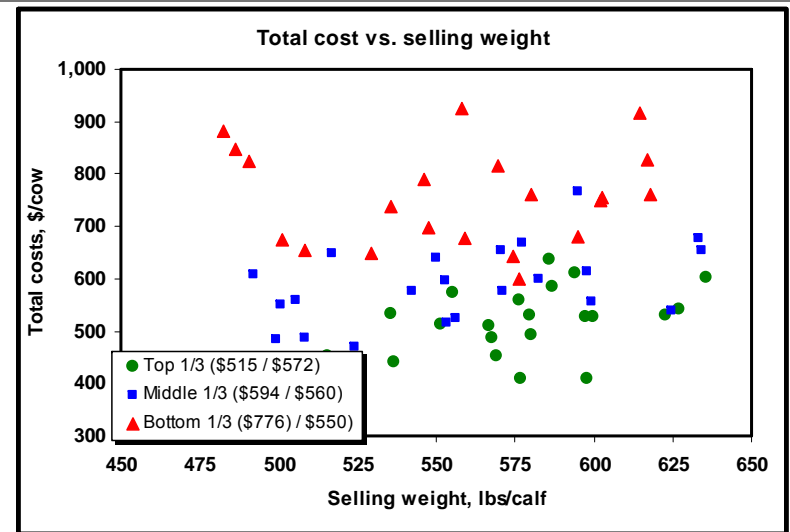
... but what drives these differences?

- Calf selling weight?
- Certain cost categories?
- Size of operation?
- Other factors?



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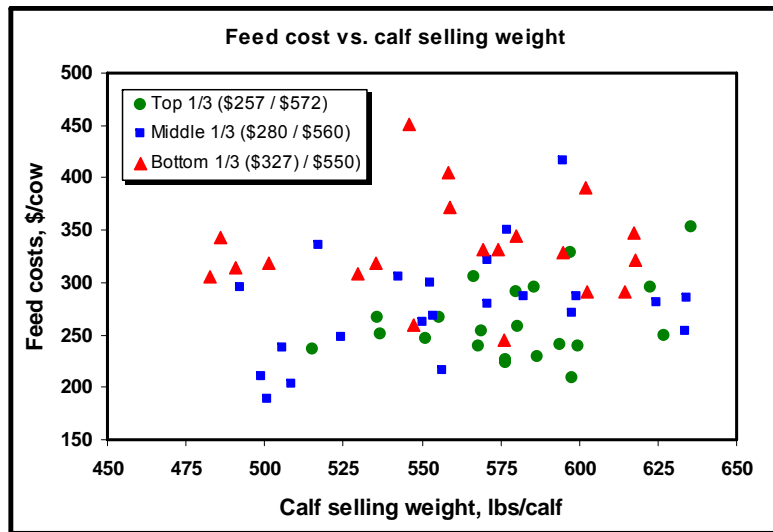
### 3-Year avg: Total cost versus selling weight



Correlation: -0.02

36

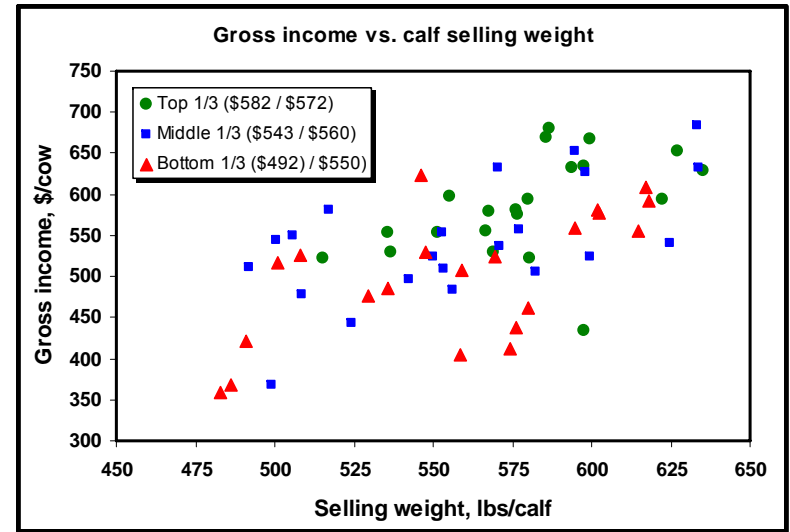
### 3-Year avg: Feed costs versus calf weight



Correlation: 0.12

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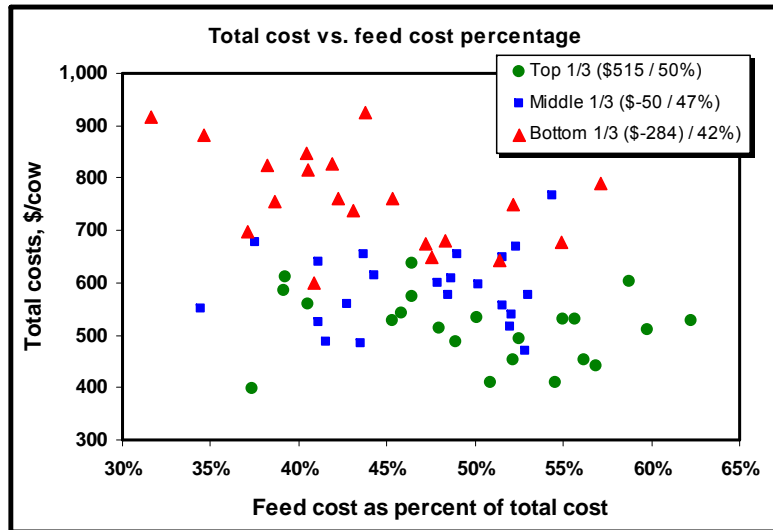
### 3-Year avg: Income versus selling weight



Correlation: 0.59

38

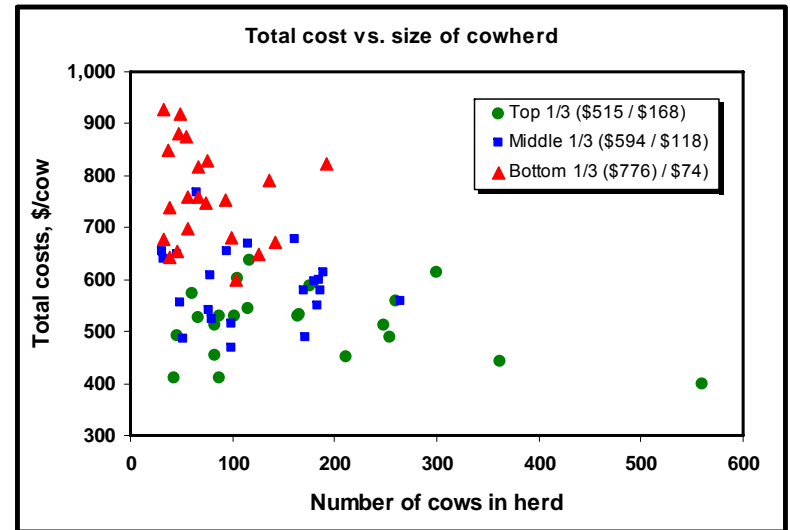
### 3-Year avg: Total cost versus feed cost %



Correlation: -0.39

39

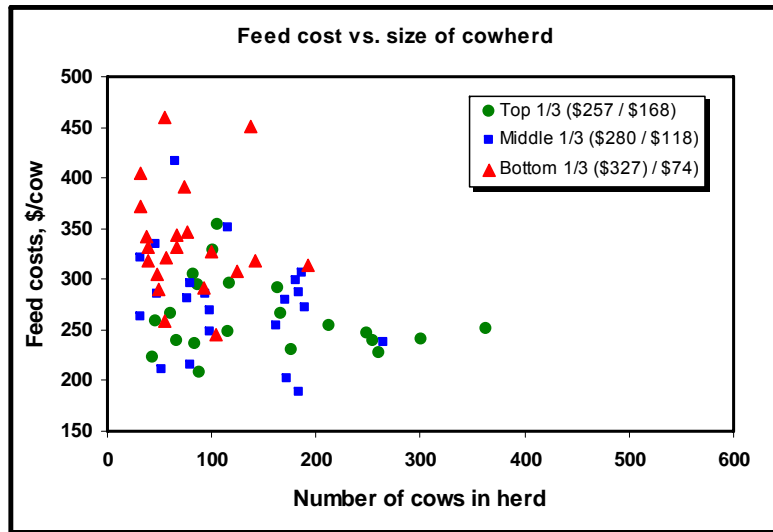
### 3-Year avg: Costs versus herd size



Correlation: -0.41

40

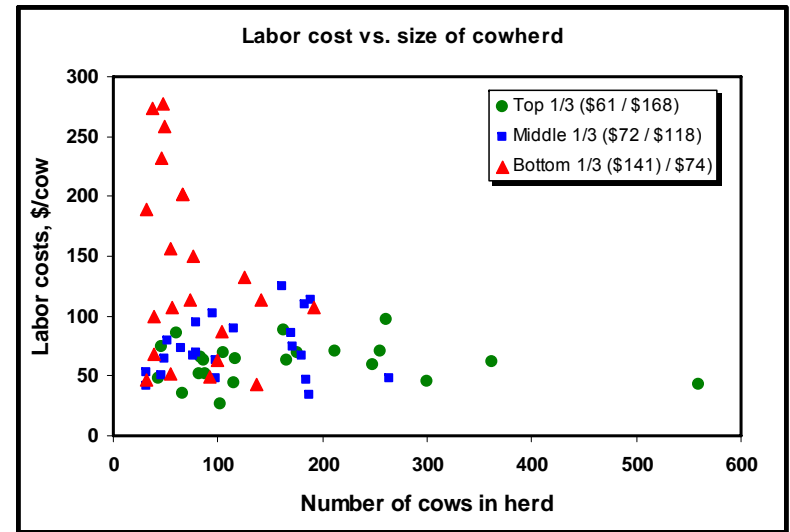
### 3-Year avg: Feed costs versus herd size



Correlation: -0.41

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### 3-Year avg: Labor costs versus herd size



Correlation: -0.29

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### Correlations between several economic and production variables (weak analysis, but it is a start)...

(higher absolute values are an indication of stronger relationships)

	Profit	Total cost	Feed cost	Labor cost	Dep, mach, int	Gross per cow	Selling weight	Sale price	Herd size	Year
Profit	1.00	-0.89	-0.54	-0.66	-0.65	0.61	0.29	0.09	0.41	-0.28
Total cost	-0.89	1.00	0.66	0.62	0.74	-0.20	-0.02	-0.01	-0.41	0.28
Feed cost	-0.54	0.66	1.00	0.09	0.31	0.00	0.12	-0.05	-0.41	0.23
Labor cost	-0.66	0.62	0.09	1.00	0.21	-0.35	-0.12	-0.20	-0.29	0.06
Dep, mach, int	-0.65	0.74	0.31	0.21	1.00	-0.14	-0.05	0.16	-0.19	0.30
Gross per cow	0.61	-0.20	0.00	-0.35	-0.14	1.00	0.61	0.14	0.14	-0.12
Selling weight	0.29	-0.02	0.12	-0.12	-0.05	0.61	1.00	-0.34	-0.23	-0.19
Sale price	0.09	-0.01	-0.05	-0.20	0.16	0.14	-0.34	1.00	0.46	0.46
Herd size	0.41	-0.41	-0.41	-0.29	-0.19	0.14	-0.23	0.46	1.00	0.04
Year	-0.28	0.28	0.23	0.06	0.30	-0.12	-0.19	0.46	0.04	1.00

- Little to no relationship between these variables ( $r < |0.10|$ )
- Negative relationship between these variables ( $r < -0.40$ )
- Positive relationship between these variables ( $r > 0.40$ )

### Summary of historical returns...



- Considerable variability in returns over time, but variability between producers at a point in time is much larger.
- Cost differences between producers explains much of the variability in profitability differences.
- Correlation between dep., mach., & int. costs and profit greater than feed costs and profit. Labor costs also stronger correlation with profit than feed costs.
- Larger cow-calf operations tend to have lower costs and be more profitable, but smaller operations can be competitive (it's just harder to do on average).

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## Other factors impacting returns?



### Beef 2007-08 (USDA APHIS NAHMS)

#### Part 1: Reference of Beef Cow-calf Management Practices in the United States, 2007-08

	Percent Operations				
	Herd Size (Number of Beef Cows)				All operations
	1-49	50-99	100-199	200 or more	
<b>Record-keeping System</b>					
Hand-written records	76.2	80.8	89.1	88.5	78.6
Computer on operation	13.3	24.5	21.8	37.4	17.0
Computer off operation	2.0	4.2	3.7	10.8	2.9
Any of above	80.5	87.0	93.6	95.0	83.3
<b>Reason for Operating Cow-calf Operation</b>					
Primary Source of Income	5.3	24.1	42.8	65.0	14.3
Supplemental Source of Income	78.0	68.3	50.9	31.7	71.9
Other	16.7	7.6	6.3	3.3	13.8

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## Other factors impacting returns?



### Beef 2007-08 (USDA APHIS NAHMS)

#### Part 1: Reference of Beef Cow-calf Management Practices in the United States, 2007-08

	Percent Operations				
	Herd Size (Number of Beef Cows)				All operations
	1-49	50-99	100-199	200 or more	
<b>Individual ID Type -- Cows</b>					
Hot-iron brand	9.1	16.8	21.6	27.7	12.2
Ear notch	2.9	7.8	10.2	14.1	4.8
Electronic ID or microchip responder	0.3	2.0	2.1	2.4	0.8
Brucellosis vaccination ear tag	18.4	31.0	41.4	56.7	24.2
Plastic ear tag	44.3	65.4	67.5	64.2	50.4
Ear tattoo	7.1	11.1	8.3	12.4	8.1
Any ID	59.3	80.4	85.0	89.1	66.1
<b>Individual ID Type -- Calves</b>					
Hot-iron brand	3.7	7.5	10.3	15.7	5.4
Ear notch	3.1	9.8	10.9	18.7	5.6
Electronic ID or microchip responder	0.1	1.7	1.9	3.7	0.7
Brucellosis vaccination ear tag	6.1	12.6	15.3	19.3	8.5
Plastic ear tag	31.8	51.2	57.0	49.8	37.7
Ear tattoo	4.8	6.3	5.4	7.8	5.2
Any ID	39.1	62.3	68.3	71.4	46.7

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## Marketing considerations...



The price you receive for your calves is basically a function of two factors:

- 1) Overall supply and demand for beef
- 2) Specific characteristics of your cattle

## Price you receive is a function of...



### 1) Overall supply and demand for beef

- Very little you can do to change this
- Manage associated price risk by:
  - Hedging with futures or options
  - Buying LRP insurance
  - Forward contracting
  - Retaining ownership

### Beef 2007-08 (USDA APHIS NAHMS)

#### Part 1: Reference of Beef Cow-calf Management Practices in the United States, 2007-08

	Percent Operations				
	Herd Size (Number of Beef Cows)				All operations
	1-49	50-99	100-199	200 or more	
<b>Percentage of Operations (and % of 2007 calf crop) Using Forward Pricing of Calves</b>					
Operations	2.3	3.1	6.9	15.4	3.5
Calf crop	2.2	3.1	7.6	18.7	9.7
<b>For Operations that Forward Priced Calves, percentage of calf crop forward priced</b>					
Percent of calf crop					68.4

## Price you receive is a function of...



### 2) Specific characteristics of your cattle

- For the most part, you control this
- Identify traits/characteristics where premium paid is greater than the cost of achieving that trait
- Unfortunately, valuable traits can be a moving target

## Traits impacting price...



- 1) Weight (CattleSeasonalsCash.xls, BeefBasis.com)
- 2) Sex
- 3) Lot size and uniformity
- 4) Health (weaned, vaccinated, preconditioned)
- 5) Color / breed
- 6) Condition, frame, muscling, horns, etc.
- 7) Information

## Traits impacting price...

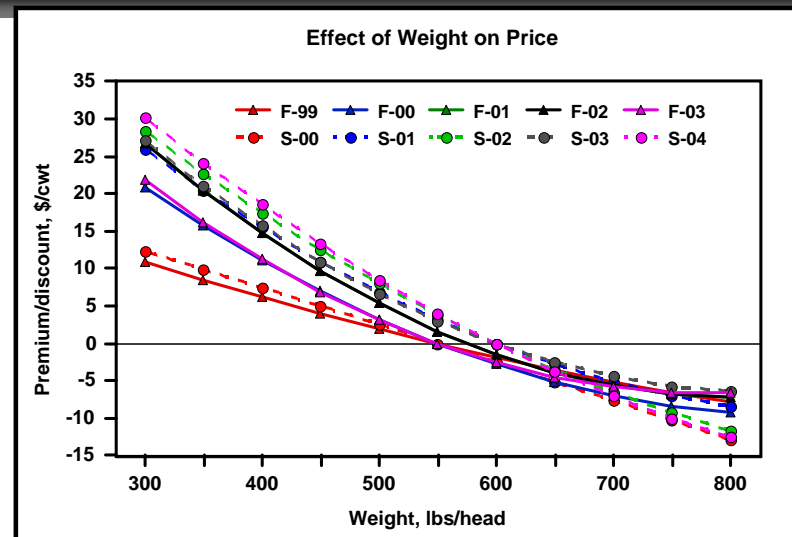


### Beef 2007-08 (USDA APHIS NAHMS)

#### Part 1: Reference of Beef Cow-calf Management Practices in the United States, 2007-08

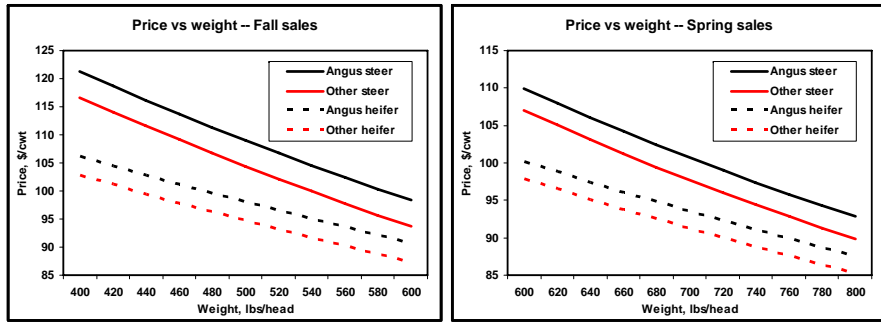
	Herd Size (Number of Beef Cows)				All operations
	1-49	50-99	100-199	200 or more	
Percentage of Operations that Castrated any Bull Calves (born in 2007 before sale)	50.3	75.0	85.1	95.3	59.2
Percent of Operations Providing Buyers with Information about Calf Health Program					
Operations	28.2	43.4	57.5	74.0	35.2
For Operations that Provided Buyers with Information about Calf Health Program					
Written documentation	32.6	47.6	51.9	53.1	40.2
Told buyer orally	65.1	51.5	47.6	45.4	58.1
Other	2.3	0.9	0.5	1.5	1.7
Total	100.0	100.0	100.0	100.0	100.0
Percentage of Operations with Repeat Buyers of Weaned Calves	27.2	37.1	39.8	60.3	31.5

## Weight impacts price...



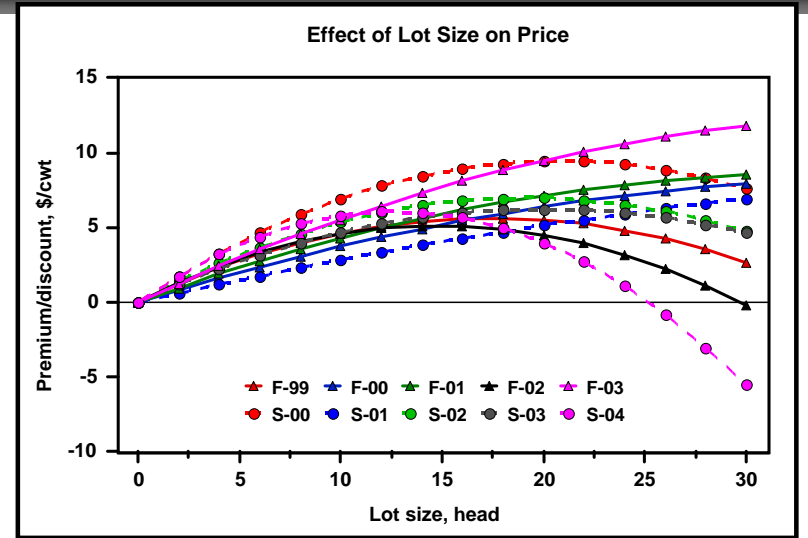
Source: Holton Livestock Exchange LMA-VACC Sale Analysis

## Weight, sex, and breed matters...



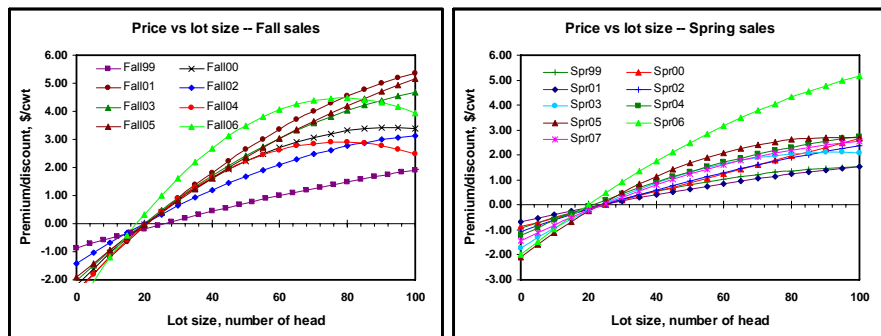
CAB – “Where’s the Premium” Study

## Lot size impacts price...



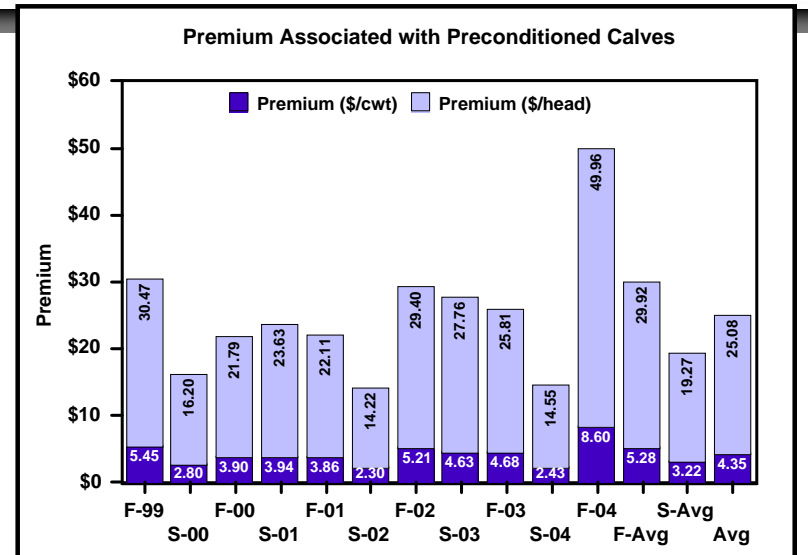
Source: Holton Livestock Exchange LMA-VACC Sale Analysis

## Lot size matters...



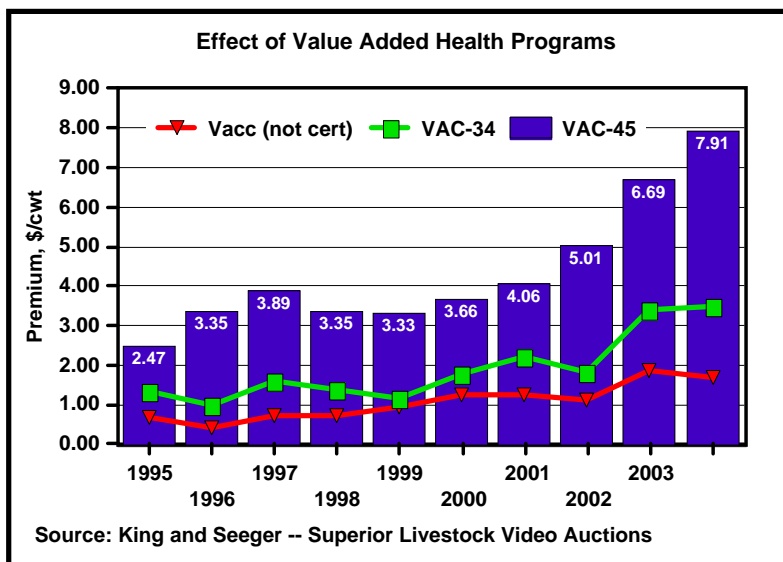
CAB – “Where’s the Premium” Study

## Premiums for preconditioning



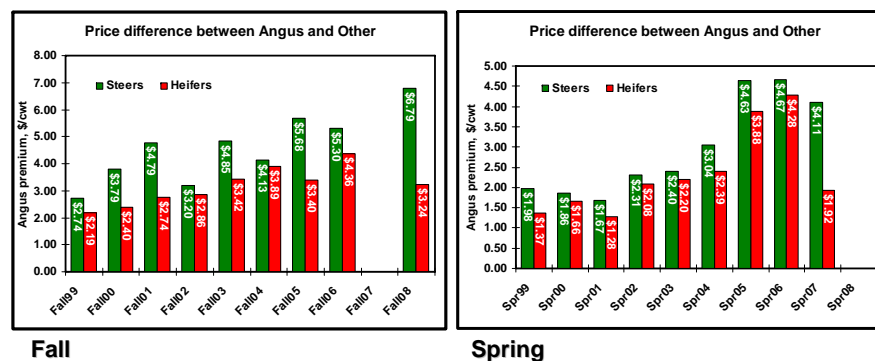
Source: Holton Livestock Exchange LMA-VACC Sale Analysis

## Premiums for preconditioning



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## Difference between Angus and Other prices...



CAB – “Where’s the Premium” Study

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## Other considerations...



- Source and age verification
- Process verification
- Natural, organic, never ever, ...

### Beef 2007-08 (USDA APHIS NAHMS)

#### Part 1: Reference of Beef Cow-calf Management Practices in the United States, 2007-08

Marketing Channel	Percent Operations				All operations
	1-49	50-99	100-199	200 or more	
Breed-influenced program	11.7	15.9	16.1	28.6	13.6
Age-and-source verification program	5.2	11.7	14.9	29.0	8.2
Conventional	60.5	68.7	68.4	67.8	62.8
Natural	28.8	25.3	24.4	30.8	28.0
Certified organic	1.2	0.2	0.3	1.3	1.0
Other	1.4	0.8	2.6	2.3	1.5

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## Other considerations...



- There are lots of different “programs” and wading through all of them can be difficult.
- *Competitive Edge* (website / tool for examining various market programs, alliances, etc.) available later this spring at [www.beefusa.org](http://www.beefusa.org)
- Beef magazine listing of beef alliances <http://beefmagazine.com/markets/alliance-yellow-pages/>
- Drovers magazine listing of beef alliances <http://www.drovers.com/directories.asp?pgID=648>

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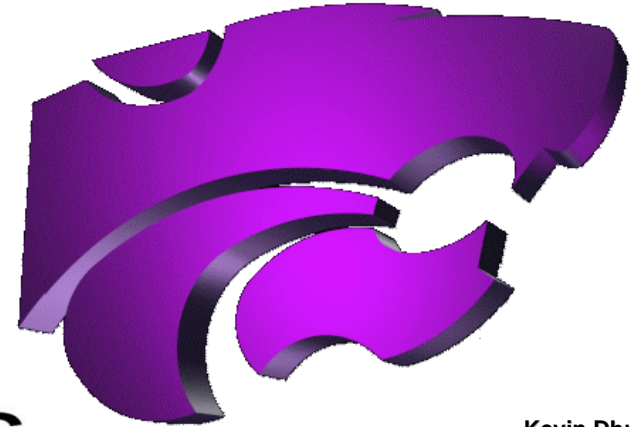
## Summary...



- Tremendous volatility the last several years, we will probably see more of the same in 2009 (try to maintain some flexibility).
- Profitability wise, 2009 does not look like it will be a great year, but things look better than 2008.
- More variability in profits between producers at a point in time than on average over time (much of this is due to cost differences → always strive to get better).
- Price does affect profitability, but focus on the aspect of price you can control and manage.

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## Questions ???



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