

*The Future of the US Industry: An Overview of Herd Size,
Farm-Level Profitability Drivers, and Global Position*

Mid-Size or Mega – Sizing your Cow Herd



presents its

14th Annual Field Day
Tuesday, June 26 2012

at the Termuende Research Ranch
Lanigan, SK

Glynn Tonsor

Dept. of Agricultural Economics, Kansas State University



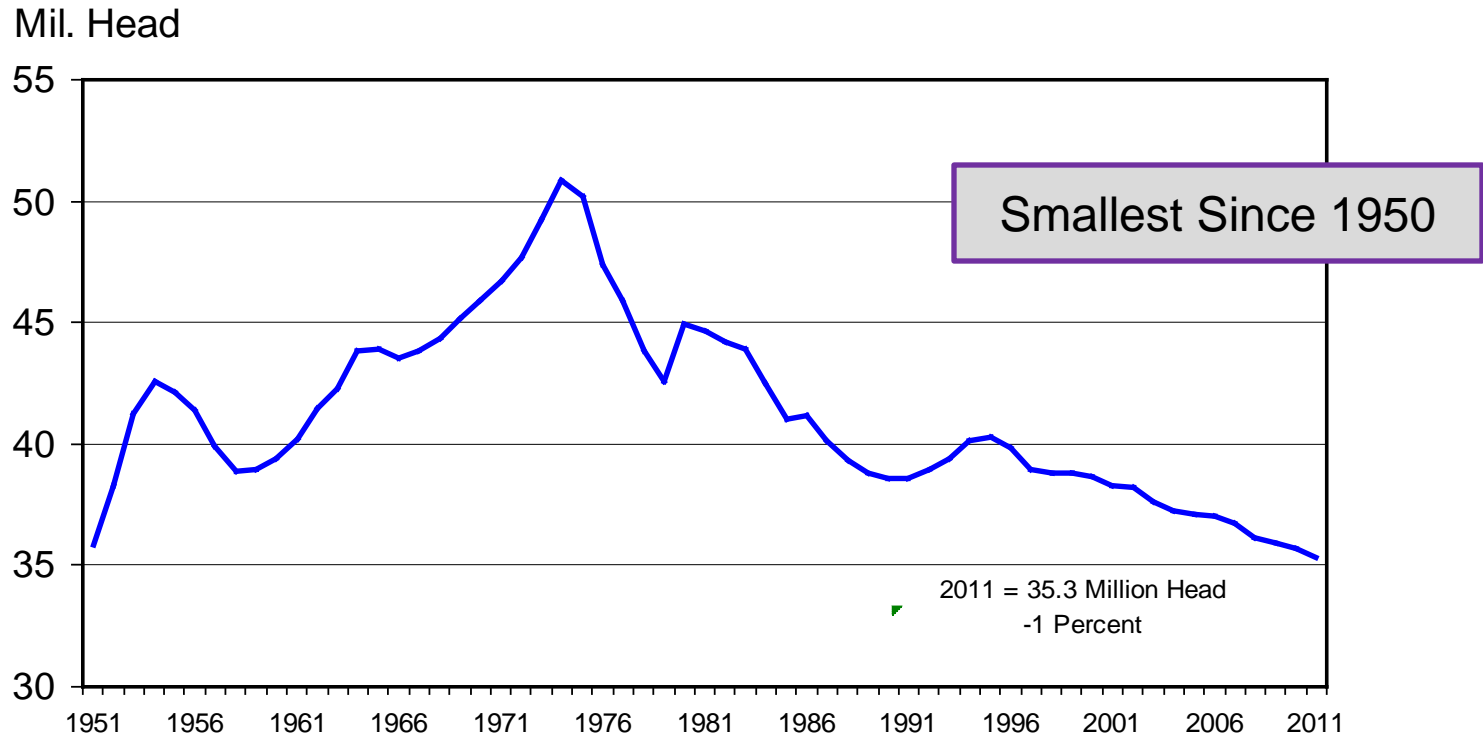
Economic Outlook Overview: U.S. Beef/Cattle Industry

- Cow-Calf:
 - Beneficiary of tight supplies; peak returns in 2014?
- Stockers:
 - Increasing value of forage based gain...
- Feedlot:
 - Excess capacity (+/-15%) = margin squeeze...
- *Overall business environment continues to change & not everyone is comfortable ...*



CALF CROP

U.S., Annual



Livestock Marketing Information Center

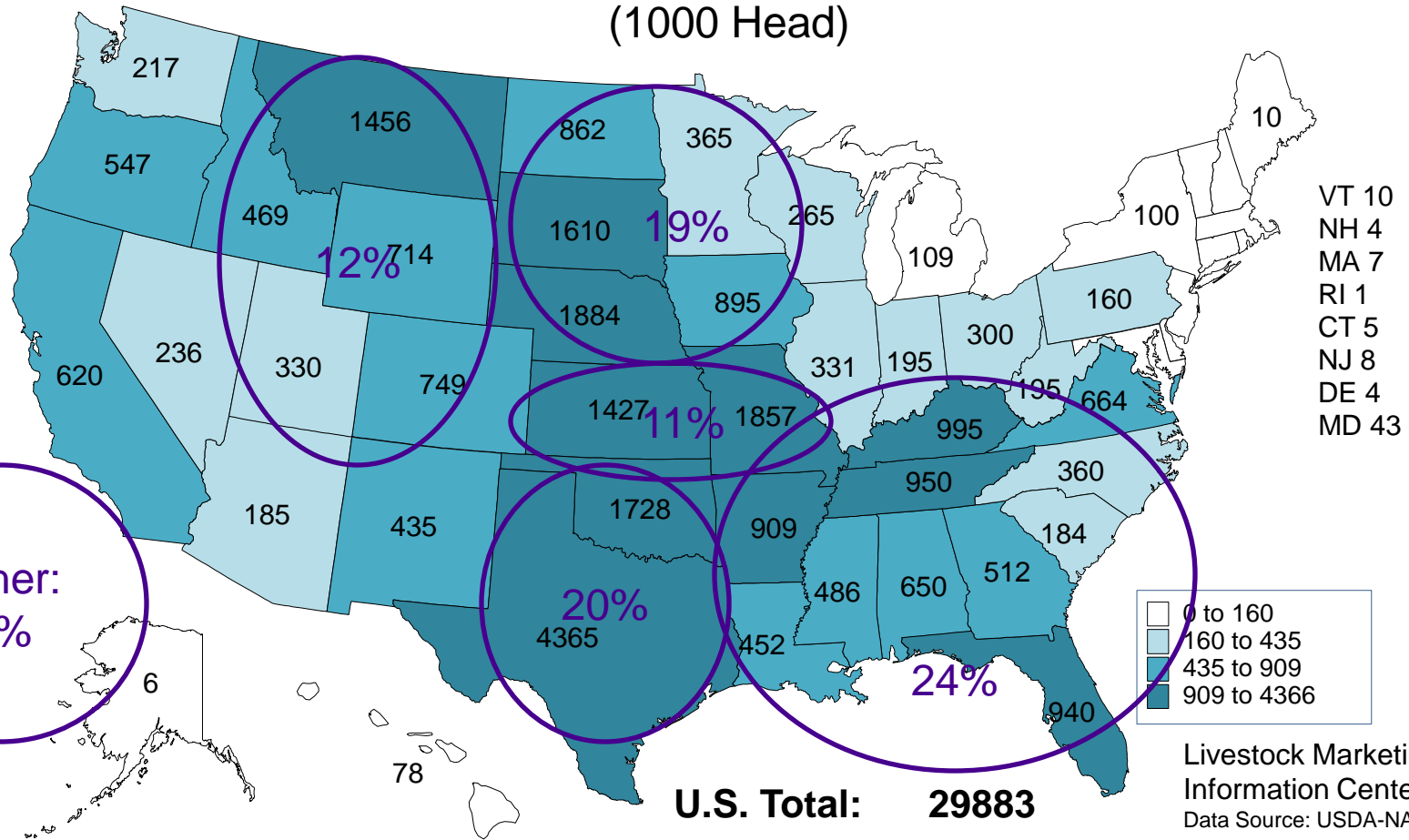
Data Source: USDA-NASS

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01/29/12



TX/OK: Smallest %
Since 1972

BEEF COWS THAT CALVED JANUARY 1, 2012 (1000 Head)



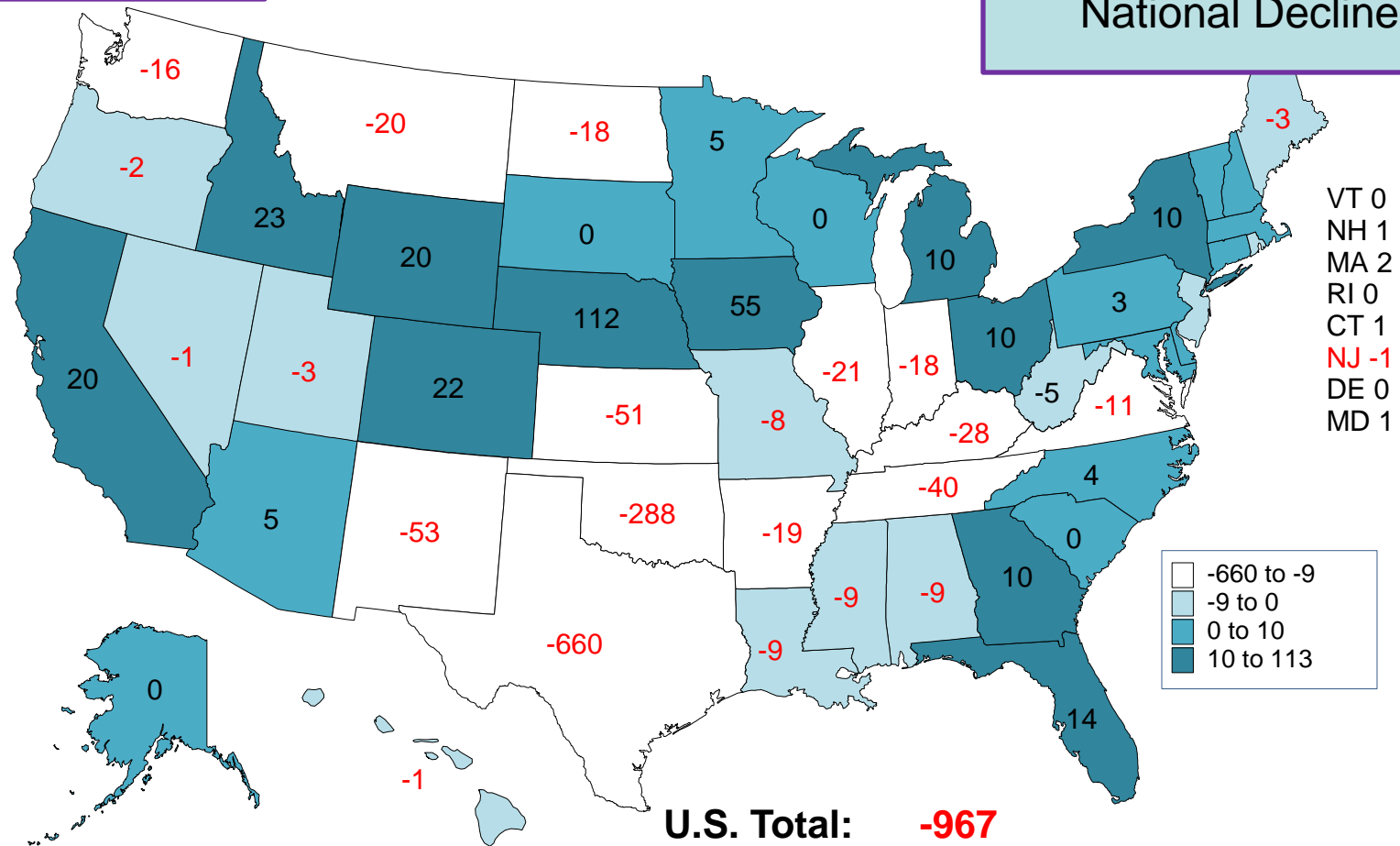
01/27/12



CHANGE IN BEEF COWS NUMBERS JANUARY 1, 2011 TO JANUARY 2012 (1000 Head)

National Herd:
-3.1% (vs. 2011)
Smallest since 1962

OK + TX = 98.1% of
National Decline



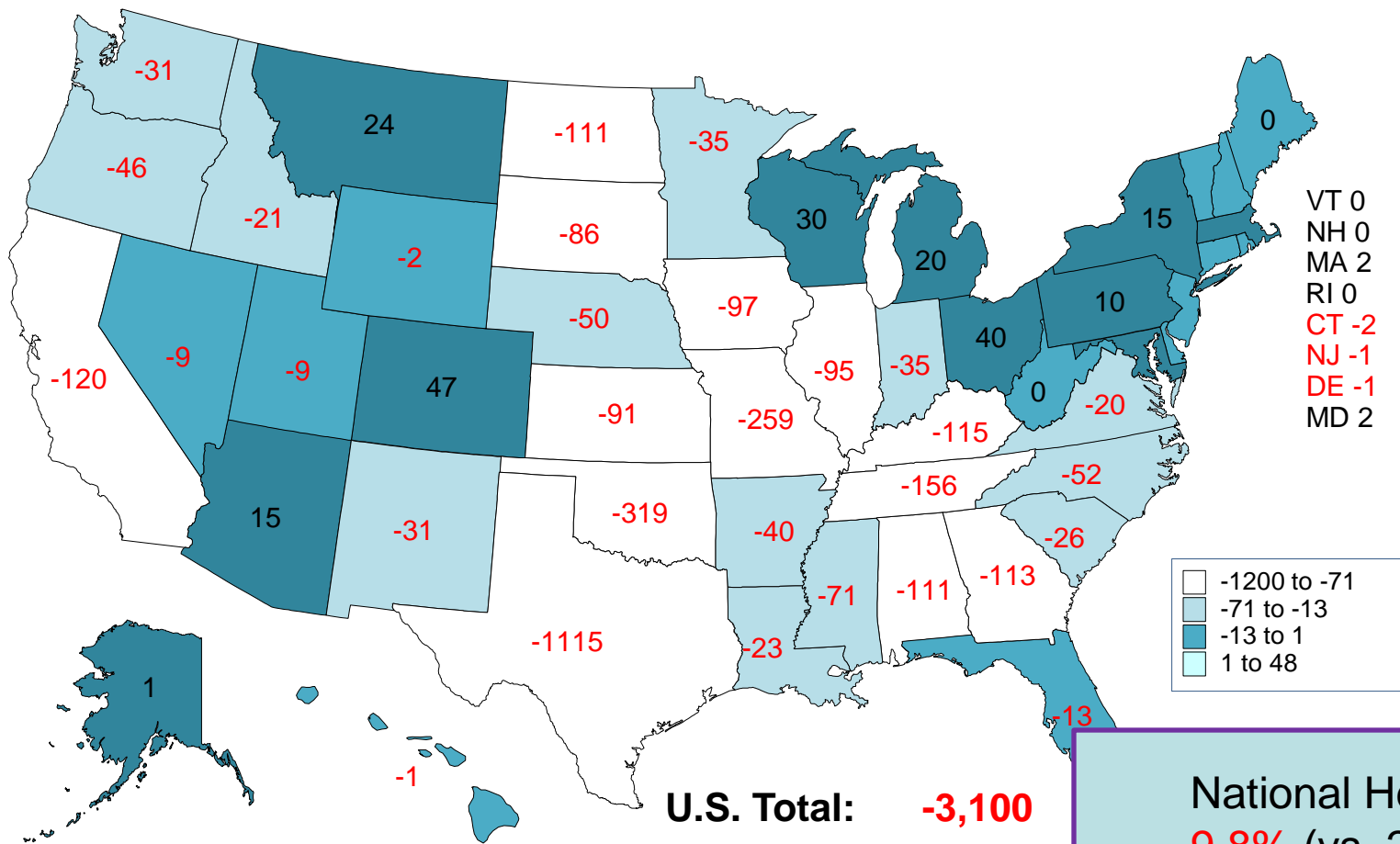
Livestock Marketing Information Center
Data Source: USDA-NASS

U.S. Total: -967

01/27/12

CHANGE IN BEEF COWS NUMBERS JANUARY 1, 2002 TO JANUARY 2012 (1000 Head)

OK + TX = 46.2%
of National Decline



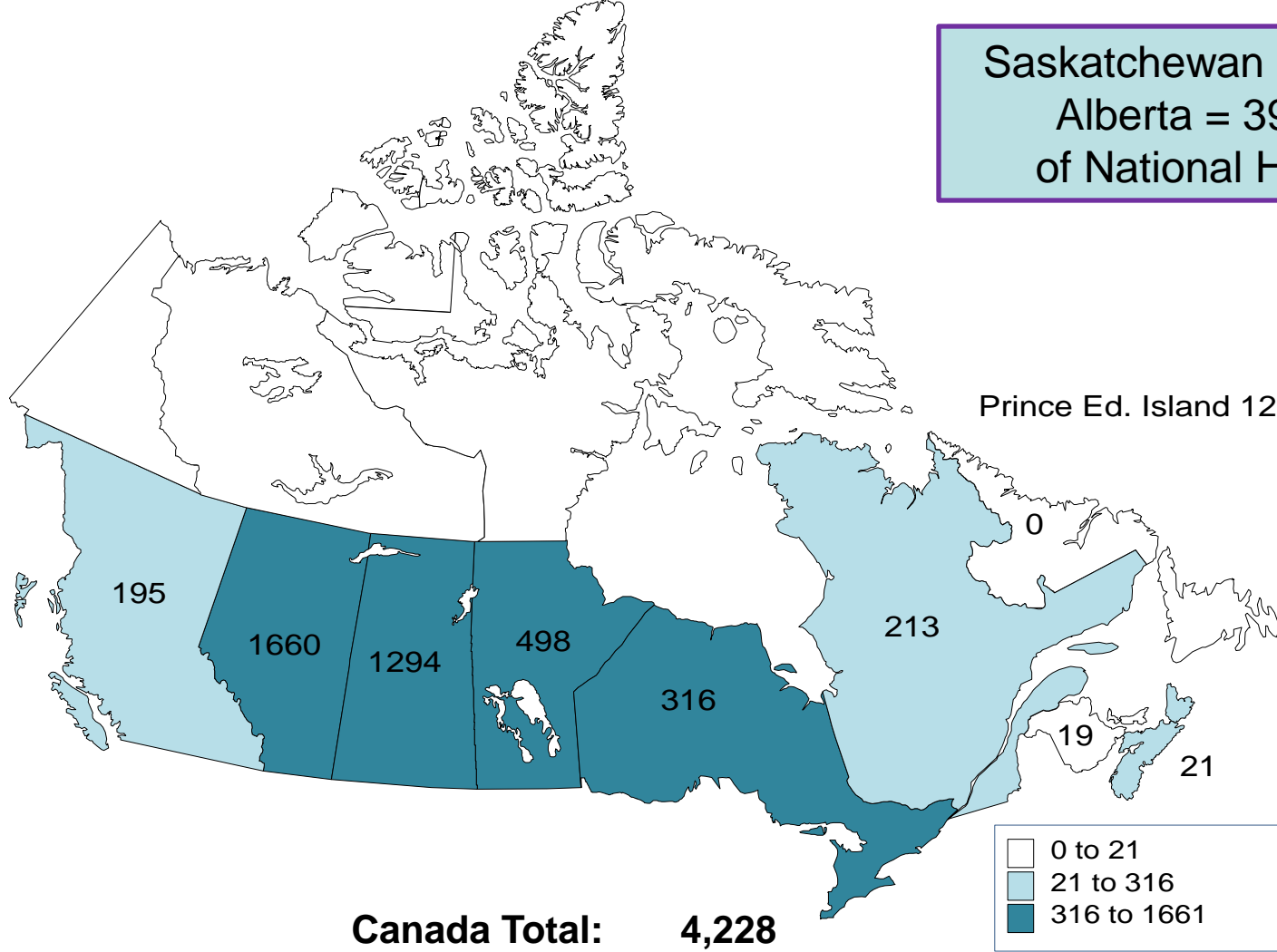
Livestock Marketing Information Center
Data Source: USDA-NASS



BEEF COWS JANUARY 1, 2012

Canada, 1000 Head

Saskatchewan = 31%
Alberta = 39%
of National Herd



Canada Total: 4,228

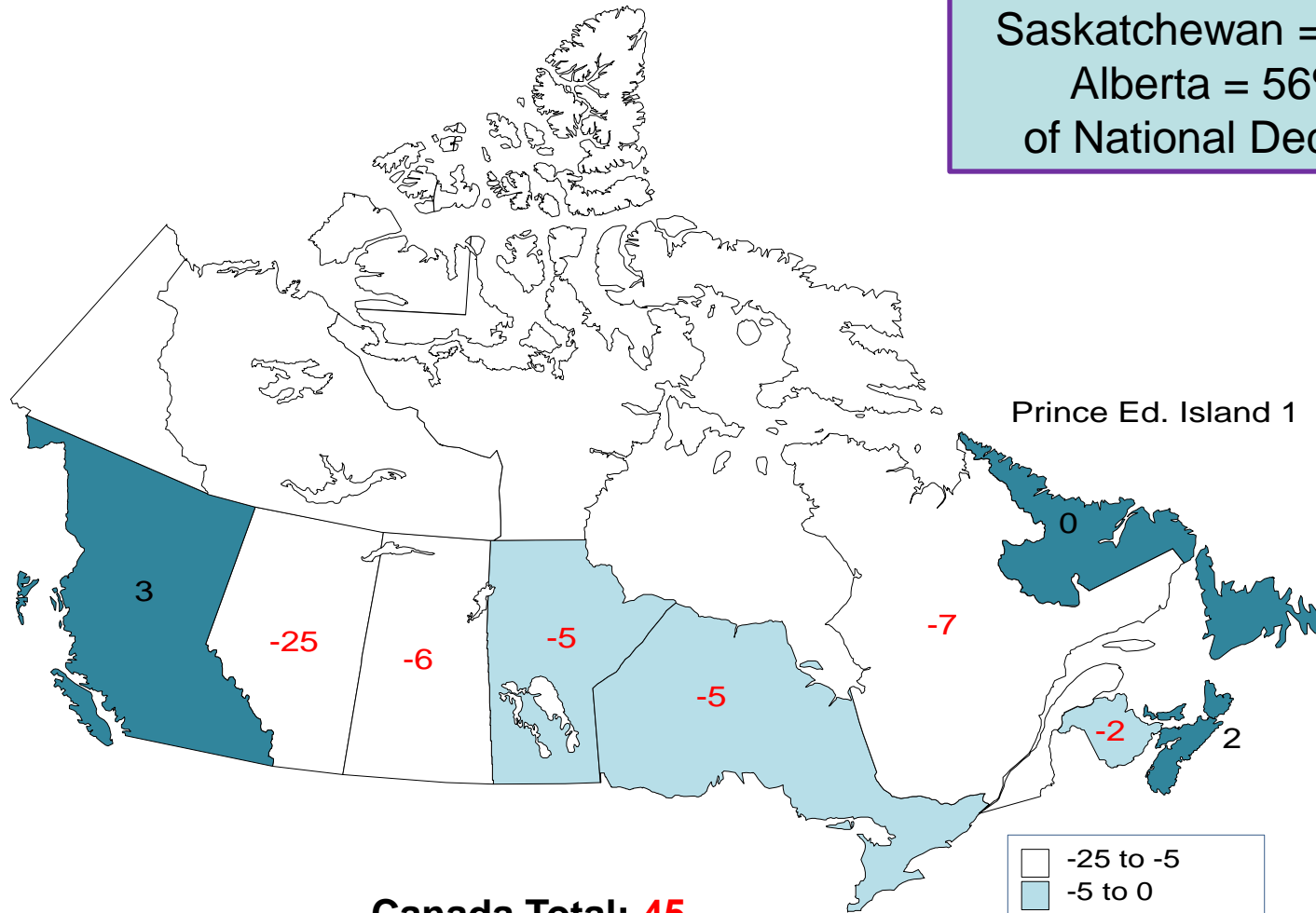
- 0 to 21
- 21 to 316
- 316 to 1661



CHANGE IN BEEF COWS NUMBERS JANUARY 1, 2011 TO JANUARY 1, 2012

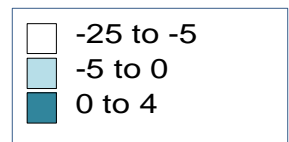
Canada, 1000 Head

Saskatchewan = 13%
Alberta = 56%
of National Decline



Livestock Marketing Information Center
Data Source: Statistics Canada

Canada Total: 45
(-1% vs. 2011)



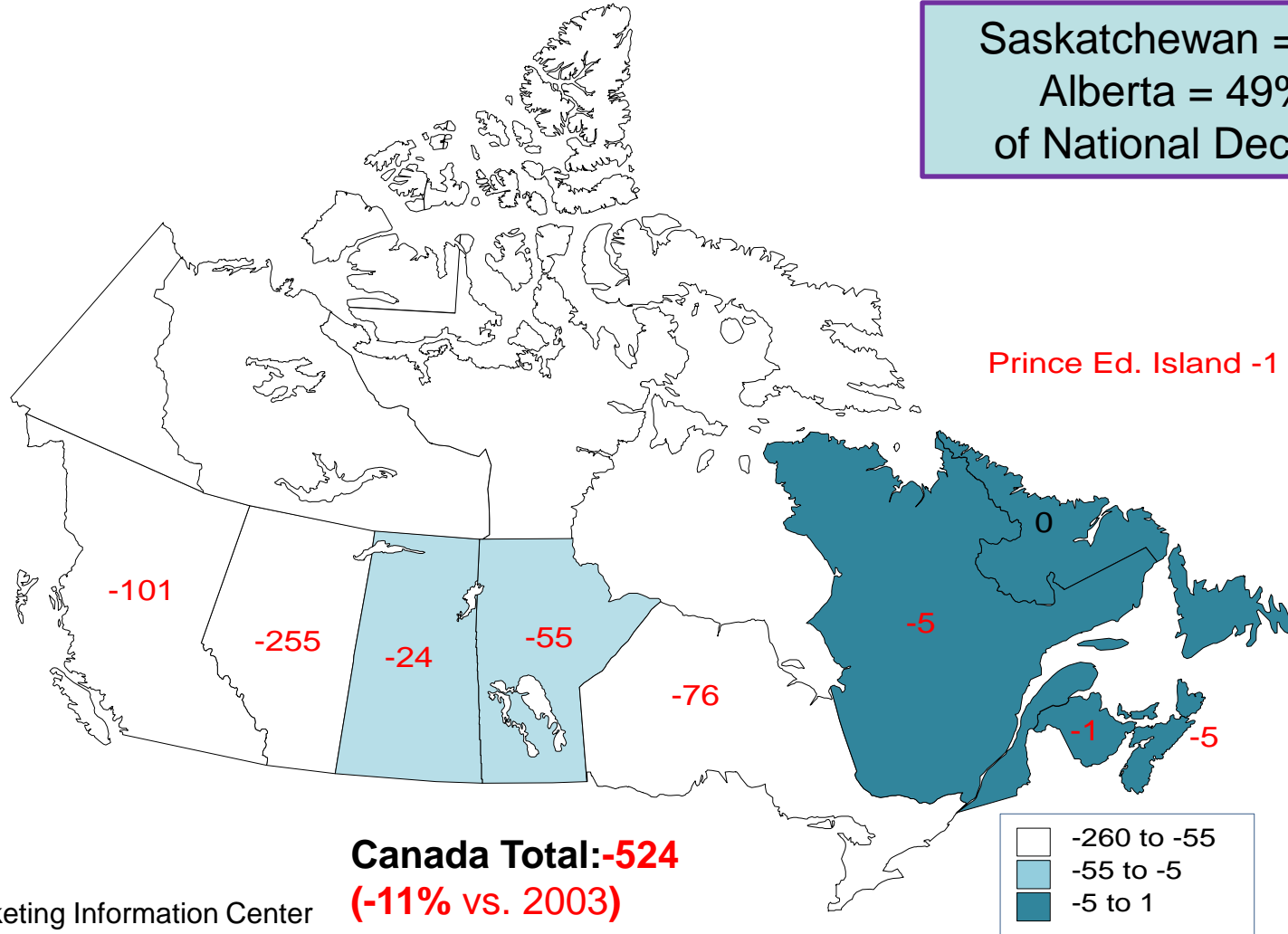
2/17/2011



CHANGE IN BEEF COWS NUMBERS JANUARY 1, 2003 TO JANUARY 1, 2012

Canada, 1000 Head

Saskatchewan = 5%
Alberta = 49%
of National Decline



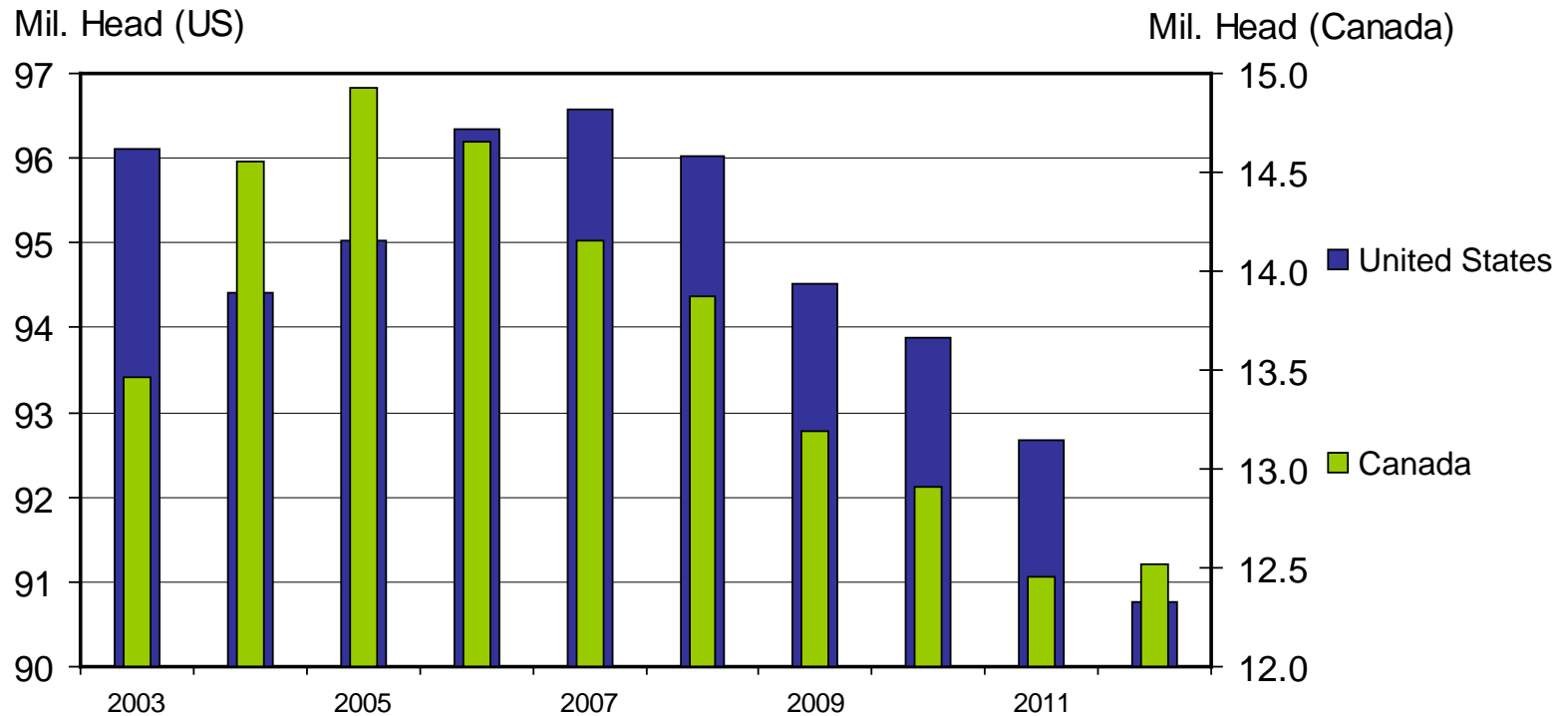
Canada Total: -524
(-11% vs. 2003)

Livestock Marketing Information Center
Data Source: Statistics Canada



CATTLE INVENTORY

January 1, United States vs Canada, Annual



Livestock Marketing Information Center

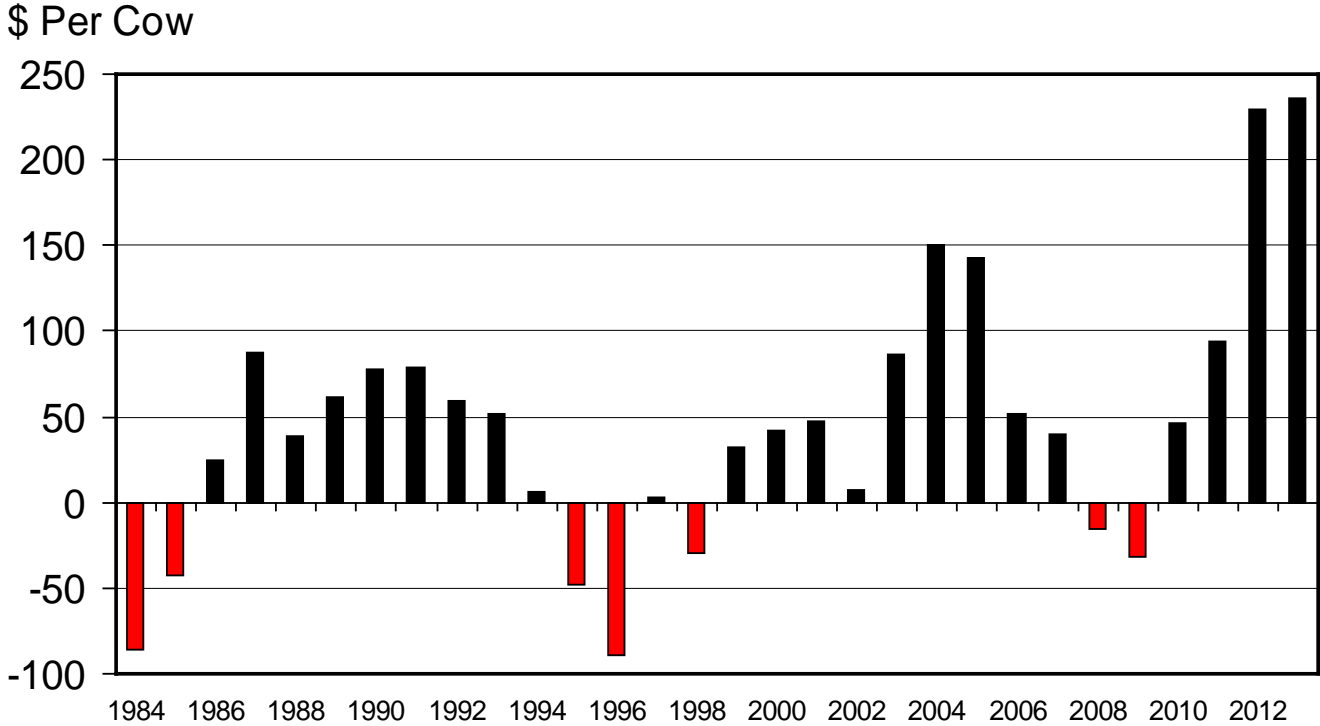
02/22/12

Data Source: USDA-NASS & Statistics Canada



ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual



Livestock Marketing Information Center

Data Source: USDA-AMS & USDA-NASS, Compiled & Analysis by LMIC

C-P-66
03/21/12



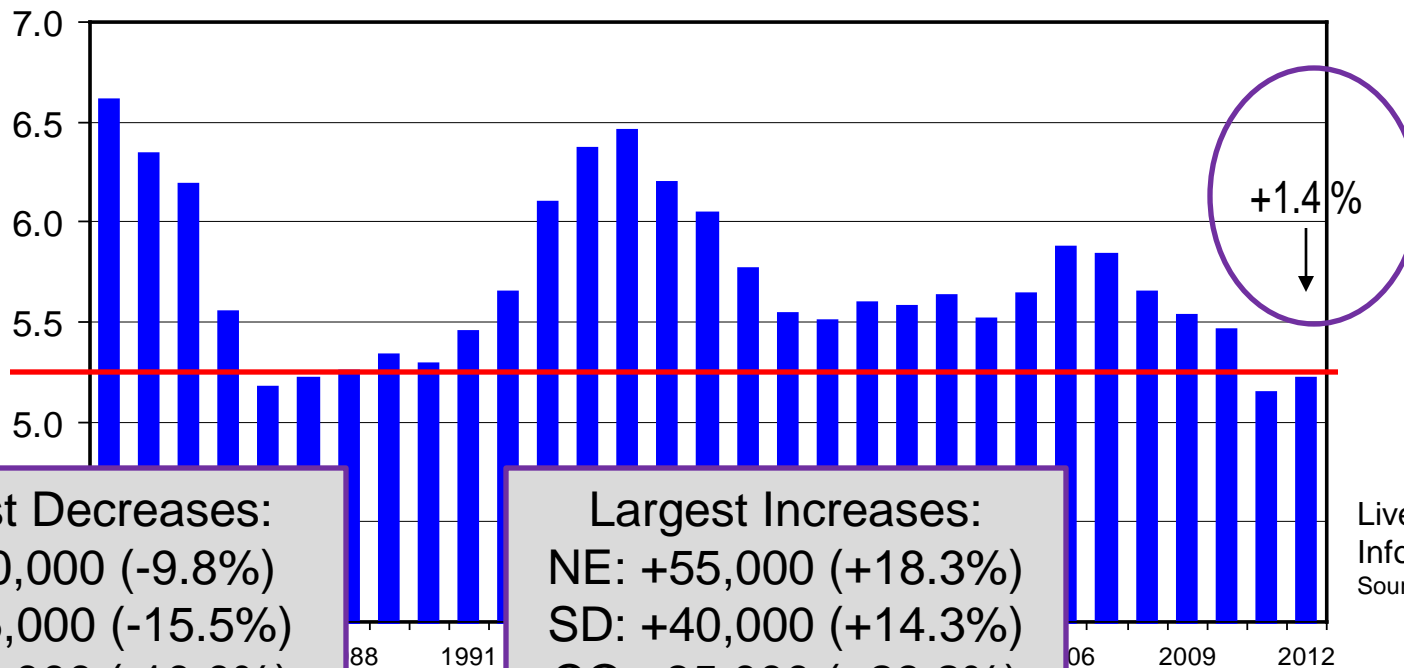
When will U.S. national herd expand?

-- by 2014??? -- who & where will expansion occur???

HEIFERS HELD AS BEEF COW REPLACEMENTS

January 1, U.S.

Mil. Head



Largest Decreases:
TX: -60,000 (-9.8%)
OK: -55,000 (-15.5%)
MO: -30,000 (-10.0%)
AR: -21,000 (-15.4%)
NM: -20,000 (-21.1%)

Largest Increases:
NE: +55,000 (+18.3%)
SD: +40,000 (+14.3%)
CO: +35,000 (+29.2%)
WY: +25,000 (+17.9%)
IA: +20,000 (+16.7%)

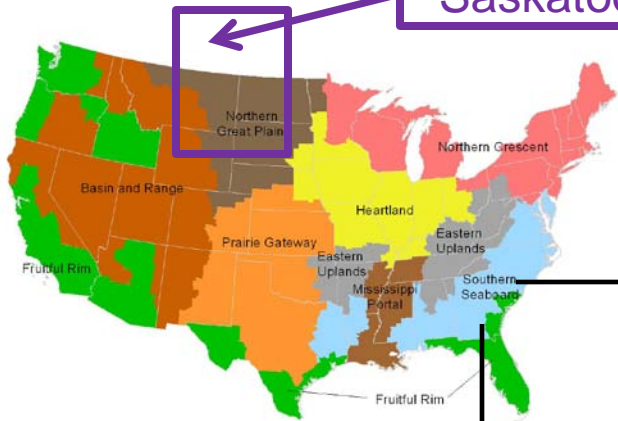
C-N-38
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Livestock Marketing
Information Center Data
Source: USDA-NASS

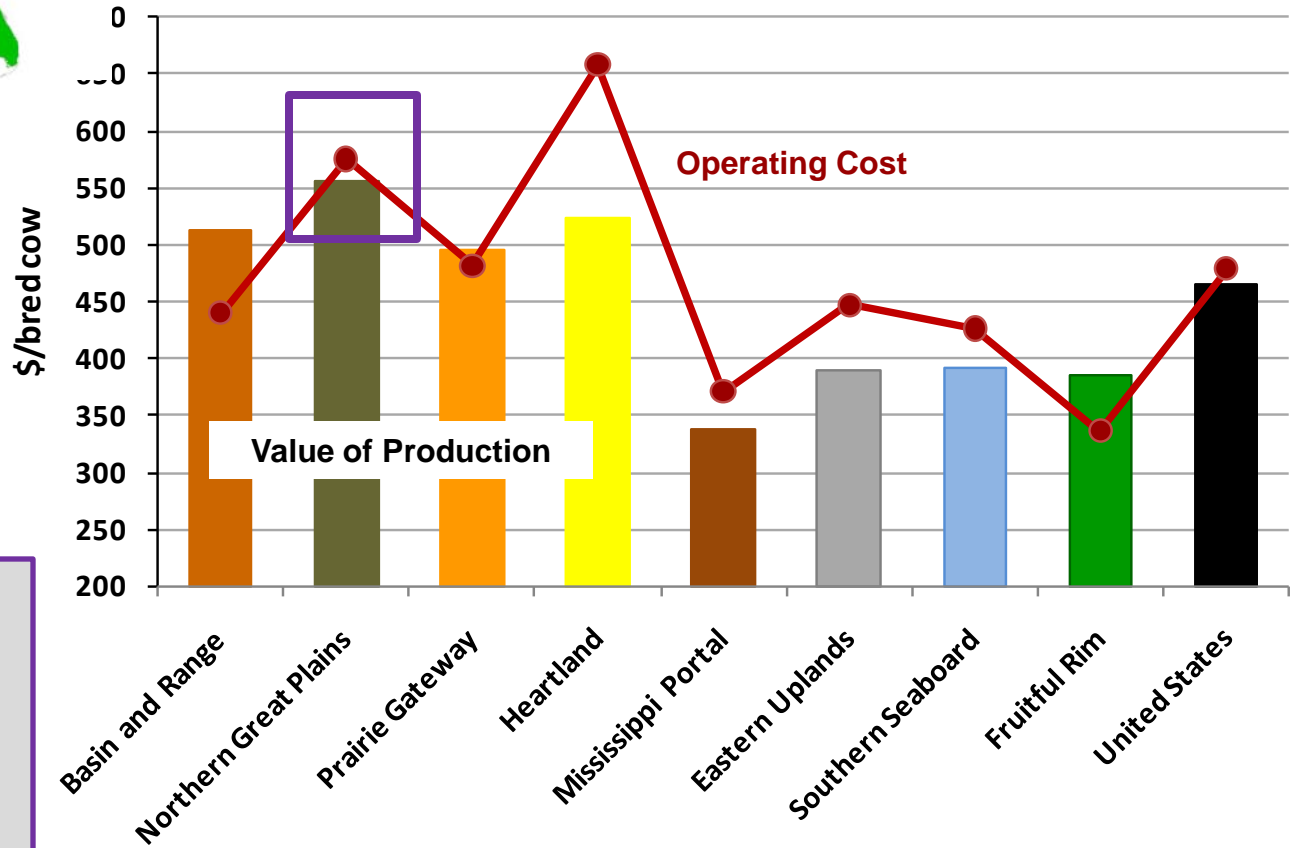
**13.4% of Beef Cow
Herd being Heifers =
Lowest since 70'...**

Saskatoon

Do some regions have an economic advantage for expansion?



Value of Production and Operating Cost by Region, 2008-2010



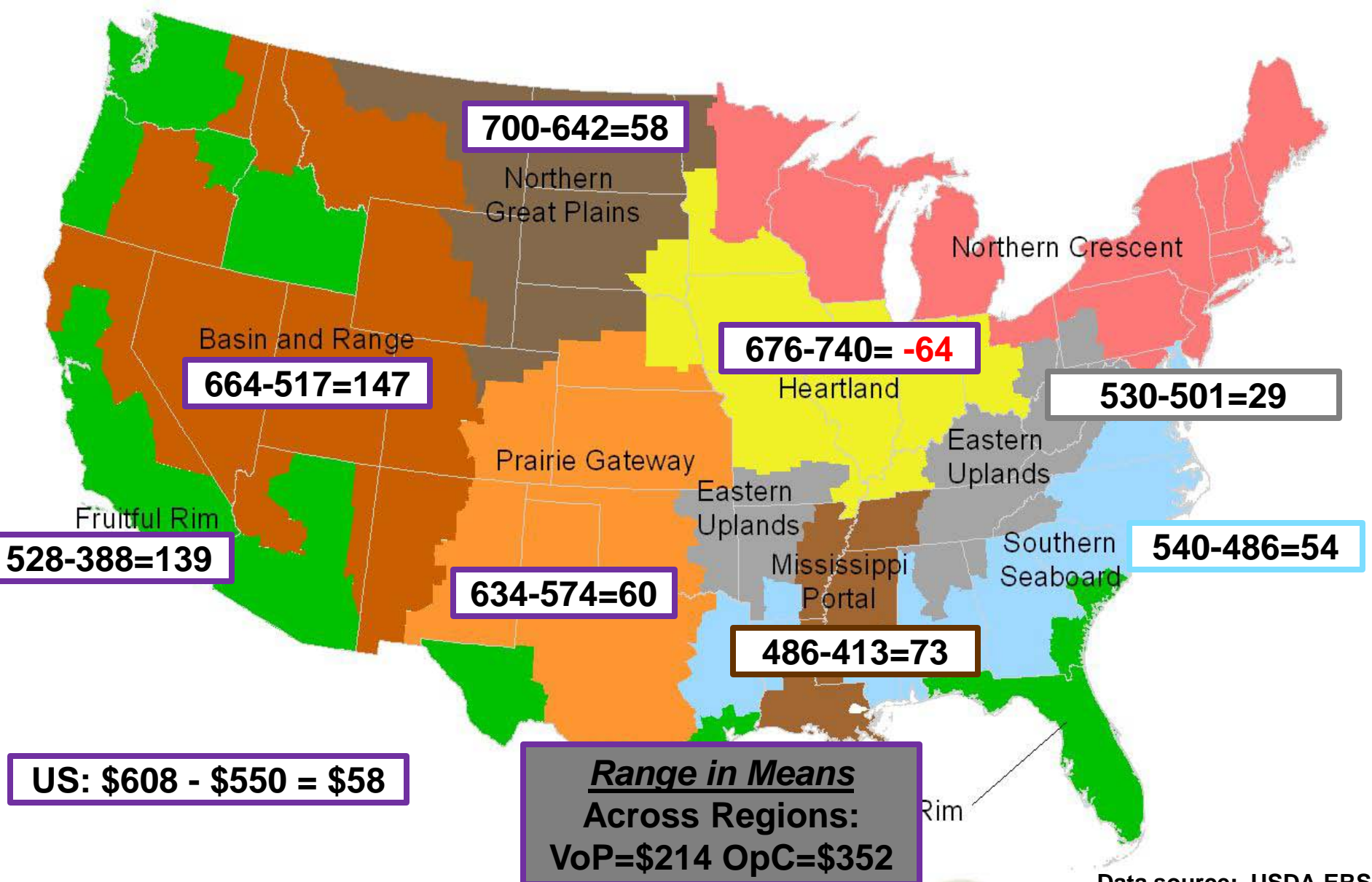
Herds > 20 cows

Operating Costs =
37% (MP) to 52%
(NGP) of Total Costs

Data source: USDA-ERS



ERS 2011 (\$/cow): Value of Production LESS Operating Costs

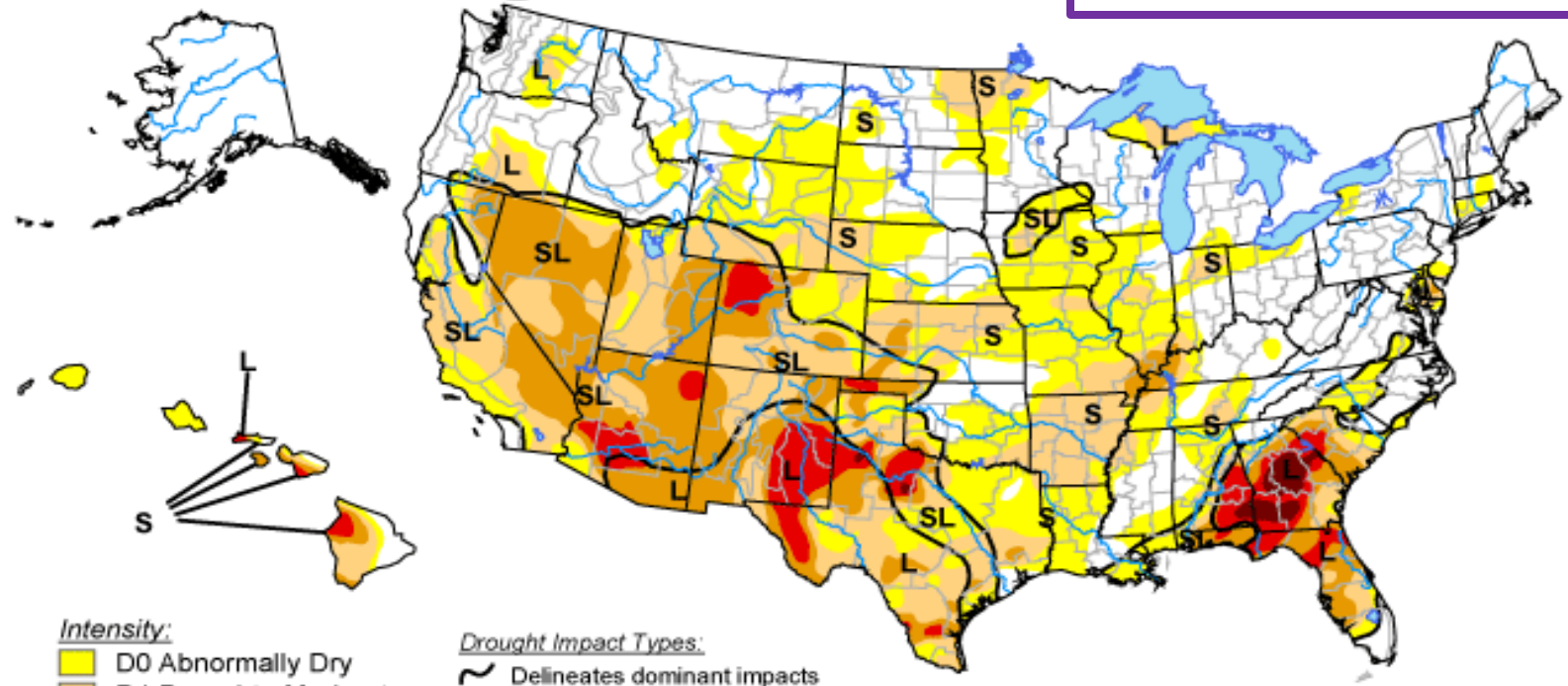


Data source: USDA-ERS

June 2012: 13% of Beef Cows in States with > 40% Poor to Very Poor Pasture Conditions (was 28% in 2011)...

U.S. Drought Monitor

June 5, 2012
Valid 7 a.m. EDT



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

- Delineates dominant impacts
- S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months (e.g. hydrology, ecology)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>



Released Thursday, June 7, 2012
Author: David Miskus, NOAA/NWS/NCEP/CPC

Cow-calf profitability drivers...



- Analysis of KFMA cow-calf enterprise analysis returns
 - 1979-2010 all operations (examine time effect)
 - 2006-2010 operations with at least three years of data (examine producer effect)
- Paper available on web (www.agmanager.info)



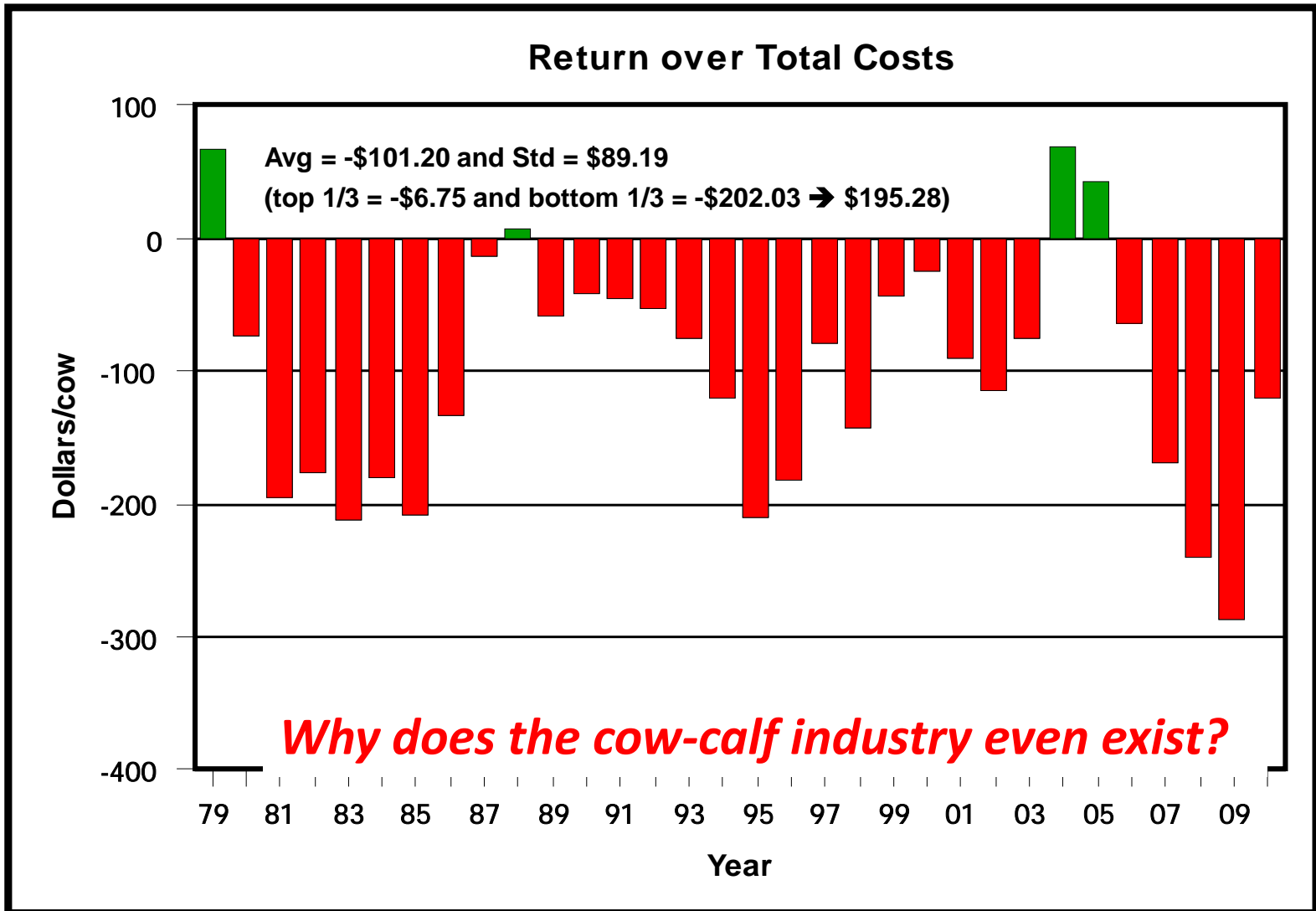
Differences Between High-, Medium-, and Low-Profit Producers:

An Analysis of the Kansas Farm Management Association
Beef Cow-Calf Enterprise

Kevin C. Dhuyvetter
Department of Agricultural Economics, Kansas State University
June 2011



KS average returns are highly variable over time...



Source: Kansas Farm Management Association (KFMA) Annual Enterprise Analysis Reports



Financial importance of U.S. cow-calf operation...

Contributions to Income and Labor Input

Reason	Percent of Operations				All
	Herd Size (Number of Beef Cows)				
	1-49	50-99	100-199	200+	
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

Source: USDA NASS APHIS, Beef 2007-08, NAHMS report.

An important characteristic of the U.S. beef cow-calf industry is that many participants are not motivated exclusively by profit from this enterprise ...



... and it shows in their management practices.

Castration					
	Herd Size (Number of Beef Cows)				
	1-49	50-99	100-199	200+	All
Operations that castrated any bull calves before sale					
Percent of operations	50.3	75.0	85.1	95.3	59.2

Implanting Calves with a Growth Promotant Prior to or at Weaning					
Implant Practice	Percent of Operations				
	Herd Size (Number of Beef Cows)				
	1-49	50-99	100-199	200+	All
Any calves	7.0	19.9	27.3	31.1	11.9
Heifers intended for replacement	2.1	6.7	9.7	9.8	3.8
Other calves (nonreplacement)	6.7	19.7	25.2	30.8	11.4

Source: USDA APHIS, Beef 2007-08, Part I: Reference of the Beef Cow-calf Management Practices in the United States, 2007-08



Returns are more variable KS producers...

Beef Cow-calf Enterprise, 2006-2010 (min of 3 years)*

	All Farms	Profit Category			Difference between High 1/3 and Low 1/3		
		High 1/3 Head / \$	Mid 1/3 Head / \$	Low 1/3 Head / \$	Absolute	%	
Number of Farms	88	29	30	29			
Labor allocated to livestock, %	36.9	47.3	32.0	31.5			
Number of Cows in Herd	134	187	131	85	103	121%	
Number of Calves Sold	122	173	118	77	96	126%	
Weight of Calves Sold	576	587	570	573	14	3%	
Calf Sales Price / Cwt	\$105.99	\$107.19	\$105.07	\$105.73	\$1.46	1%	
Gross Income	\$517.70	\$561.41	\$525.20	\$466.24	\$95.16	20%	
Feed	\$353.91	\$306.48	\$361.24	\$393.76	27.6% -\$87.28	-22%	34.9%
Interest	\$123.81	\$106.20	\$124.66	\$140.53	-\$34.33	-24%	13.7%
Vet Medicine / Drugs	\$18.99	\$18.25	\$17.92	\$20.84	-\$2.60	-12%	1.0%
Livestock Marketing / Breeding	\$13.01	\$10.86	\$13.24	\$14.93	-\$4.07	-27%	1.6%
Depreciation	\$34.39	\$25.53	\$33.96	\$43.71	-\$18.18	-42%	7.3%
Machinery	\$71.05	\$56.93	\$72.72	\$83.46	-\$26.54	-32%	10.6%
Labor	\$107.81	\$86.28	\$91.21	\$146.52	72.4% -\$60.24	-41%	24.1%
Other	\$36.20	\$25.87	\$40.22	\$42.38	-\$16.50	-39%	6.6%
Total Cost	\$759.19	\$636.40	\$755.16	\$886.14	-\$249.74	-28%	
Net Return to Management	-\$241.48	-\$74.99	-\$229.97	-\$419.89	\$344.90		

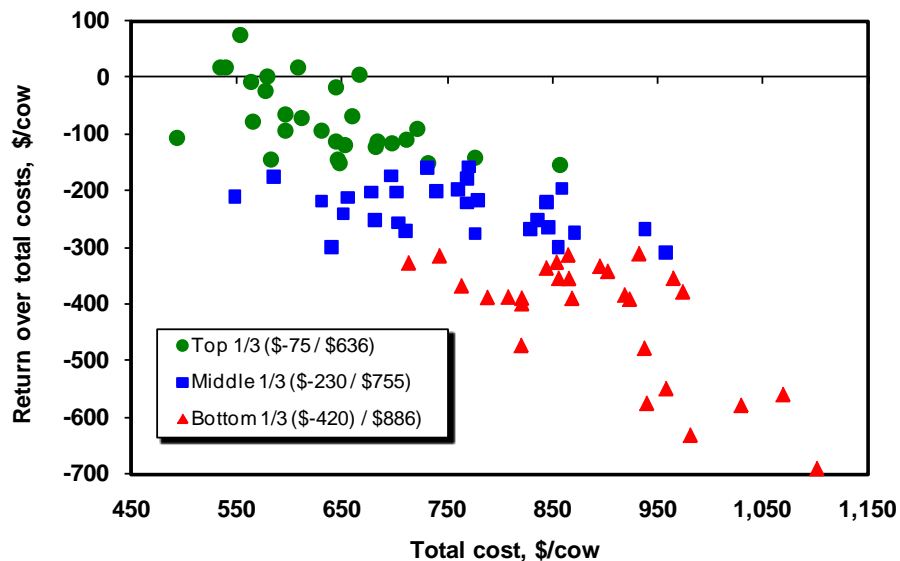
* Sorted by Net Return to Management (Returns over Total Costs) per Cow

Compared to \$195 between top and bottom third years.

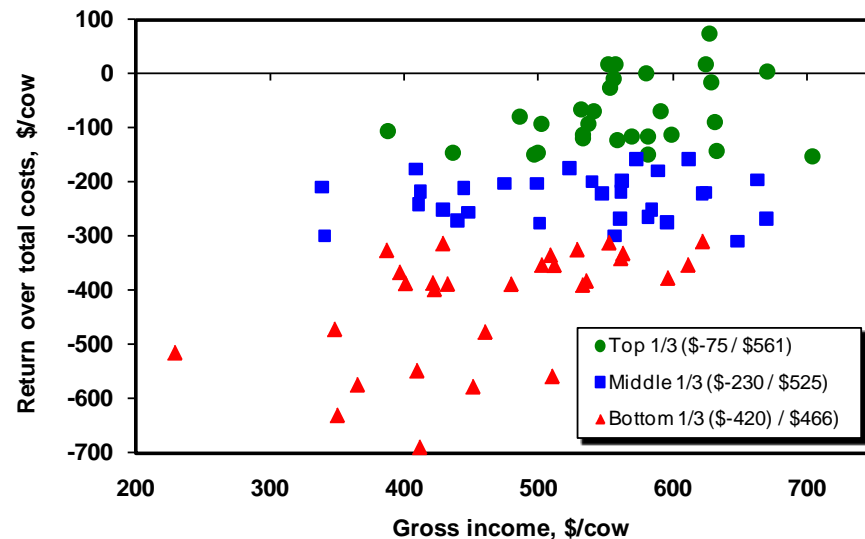
KS cow-calf profitability drivers...

- Returns are more variable across producers at a point in time than they are on average over time
 - even in “hard times” some producers are profitable;
 - similarly, in “good times” some producers lose money...
- Cost differences explain a bigger portion of profitability differences across producers than does income differences

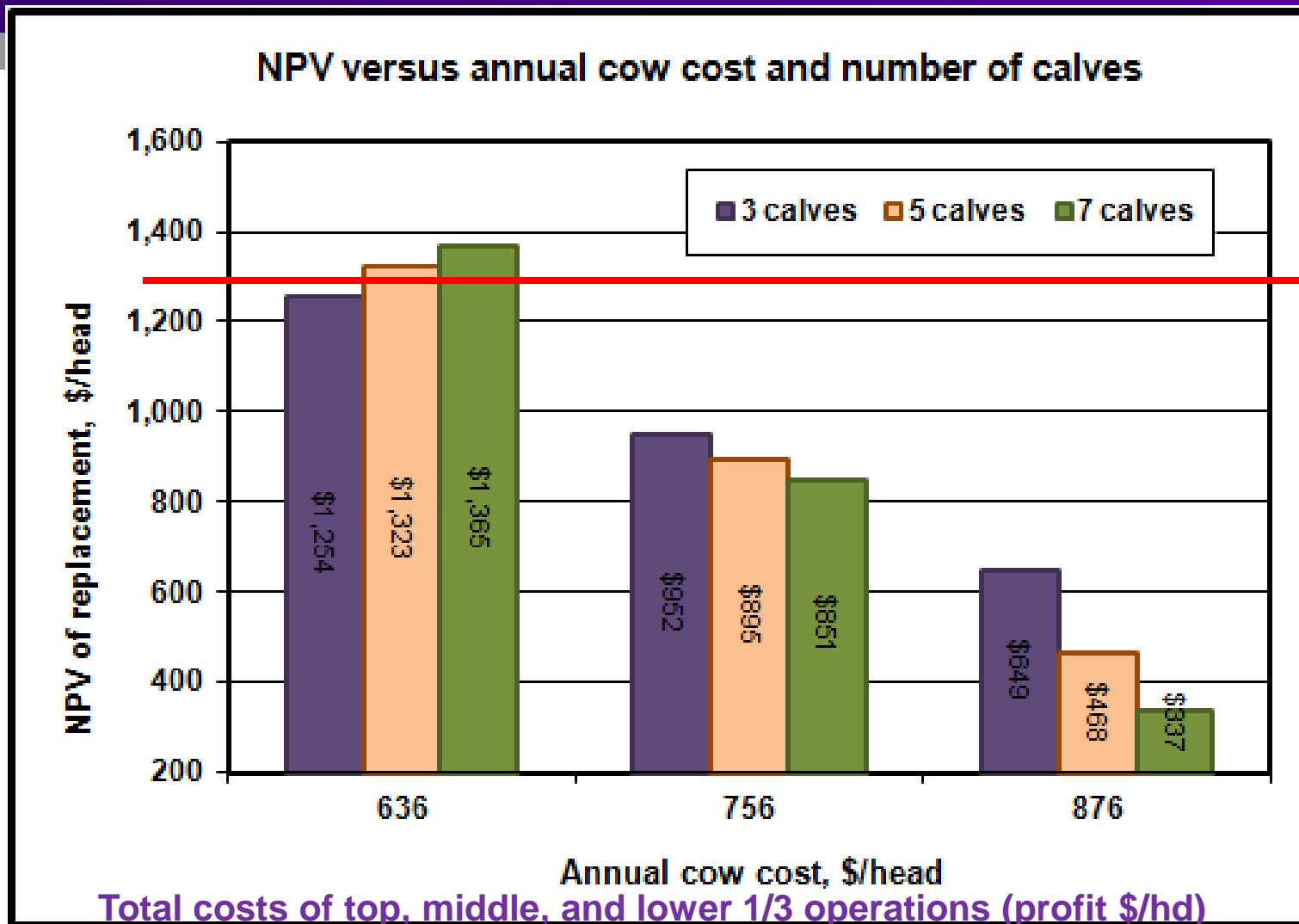
Profitability vs. total cost ($r=-0.82$)



Profitability vs. gross income ($r=0.52$)



Build herd -- How much can I pay for a heifer/cow?



KSU – Beef Replacement, Excel Spreadsheet Decision Tool

(<http://www.agmanager.info/livestock/budgets/production/default.asp>)



U.S. Industry changes underway

- BEEF Magazine Poll (N=99 as of 8/17/11')
 - “If you had to liquidate cattle this year because of flooding or drought, what do you plan to do with the proceeds?”
 - 47% Restock with cows when conditions improve
 - 9% Restock but change production models (e.g., buy stockers rather than cows)
 - 27% Keep the cash; leave the business
 - 6% Reinvest the cash in another non-livestock ag enterprise
 - 10% Don't know
- Cow-Calf Expansion points:
 - Sales value of cull cows is about = for all; costs are NOT = for all...
 - Firms with higher costs, opportunities to row crop, etc. increasingly exit
 - Expansion will not come from those with higher costs and notable alternative opportunities...
 - ***Equals: Proportion of U.S. herd North & West of KS may grow...***



Economic Outlook Overview :

Beef Demand

- Meat prices rising w/i basket of purchases...
- U.S. domestic demand has surprised analysts...
- Export prospects remain bullish...
- Discussion on demand “getting complicated”
 - Growing interest in “how my food is produced”
 - Animal welfare, food safety, antibiotics, hormone use, local, organic, origin, traceability...
 - LFTB (lean finely textured beef) discussion...
 - Customer vs. consumer distinction importance...



USDA's longer-term projections (as of Feb. 2012) ...

<http://www.ers.usda.gov/Publications/OCE121/>

- **U.S. beef cow inventory:**
 - 29.8 million in 2012
 - 34.5 million in 2021 (+/- 1997 levels) {=3% excess feedlot capacity?}
- **U.S. domestic per capita red meat & poultry consumption:**
 - 221 lbs in 2004-2007 (Beef=65.7 lbs; Pork=50.4 lbs; Poultry=103.8 lbs)
 - 198 lbs in 2013 (Beef=51.3 lbs; Pork=46.3 lbs; Poultry=98.5 lbs)
 - 213 lbs in 2021 (Beef=58.7 lbs; Pork=47.2 lbs; Poultry=105.8 lbs)
- **U.S. beef exports:**
 - 2.30 billion lbs in 2010
 - 2.77 billion lbs in 2011
 - 3.16 billion lbs in 2021

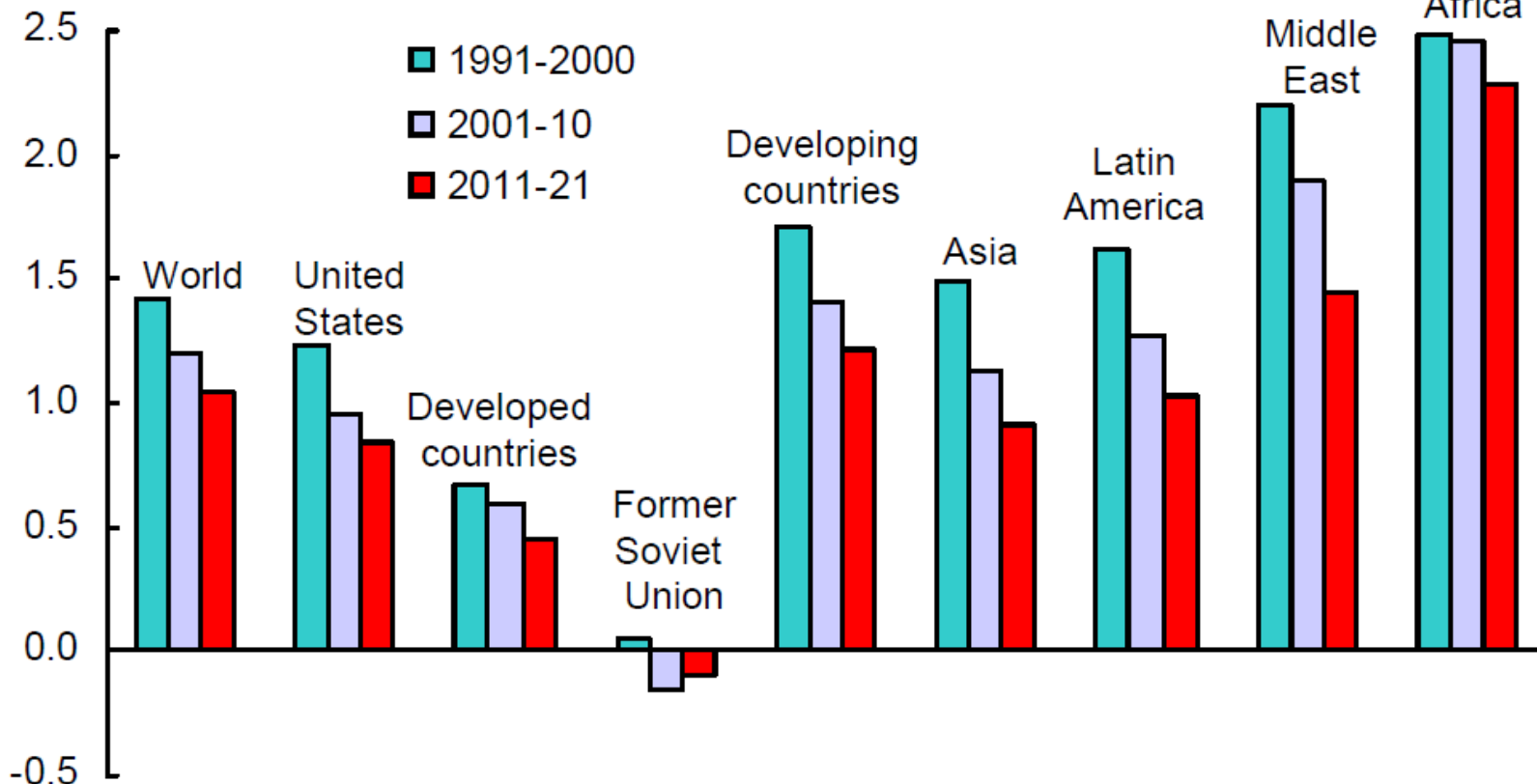


USDA's longer-term projections (as of Feb. 2012) ...

<http://www.ers.usda.gov/Publications/OCE121/>

Population growth continues to slow

Average annual percent



Source: U.S. Department of Commerce, U.S. Census Bureau.



USDA's longer-term projections (as of Feb. 2012) ...

<http://www.ers.usda.gov/Publications/OCE121/>

- **“Developed World” Changes**
 - Declining global economic prevalence, populations, & per capita meat consumption
 - US/Canada (2.5% GDP/yr)
 - Different dependence on domestic consumption...
 - Japan (1.0% GDP/yr):
 - Major meat importer currently but will exporters care less going forward?
 - Europe (1.9% GDP/yr):
 - Will influential role as “food thought leader” persist?



USDA's longer-term projections (as of Feb. 2012) ...

<http://www.ers.usda.gov/Publications/OCE121/>

- **“Developing World” Changes**
 - Increasing global \$, pop., & per capita meat cons.
 - Africa & Middle East (4.4% GDP/yr)
 - Arguably the least understood growth market...
 - Latin America (4.2% GDP/yr)
 - Growing producer & consumer...
 - China (8.0% GDP/yr)
 - Canada has access but US does not ...
 - South Korea (3.7% GDP/yr – but 10x per capita inc. of China)
 - US has access but Canada does not...



USDA's longer-term projections (as of Feb. 2012) ...

<http://www.ers.usda.gov/Publications/OCE121/>

	2011	2021	2021 to 2011 Growth	
Importers: thousand metric tons, carcass weight				
Japan	805	900	11.7%	95
South Korea	460	617	34.0%	157
Taiwan	125	159	27.0%	34
Philippines	145	179	23.1%	34
Other Asia	782	1,256	60.5%	473
European Union 1/	370	359	-2.9%	(11)
Russia	1,050	1,034	-1.5%	(16)
Other Europe	68	77	13.1%	9
Egypt	270	340	26.0%	70
Other N. Africa & M. East	892	1,311	47.0%	419
Mexico	296	599	102.5%	303
Canada	275	289	5.2%	14
United States	920	1,504	63.5%	584
Major importers	6,459	8,623	33.5%	2,164



USDA's longer-term projections (as of Feb. 2012) ...

<http://www.ers.usda.gov/Publications/OCE121/>

	2011	2021	2021 to 2011 Growth	
Exporters: thousand metric tons, carcass weight				
Australia	1,250	1,347	7.8%	97
New Zealand	501	550	9.7%	49
Asia	1,182	2,031	71.8%	849
European Union 1/	475	418	-12.0%	(57)
Argentina	260	320	23.0%	60
Brazil	1,325	1,971	48.8%	646
Canada	415	413	-0.5%	(2)
United States	1,254	1,432	14.1%	177
Major exporters	6,662	8,481	27.3%	1,819



Economic Outlook Overview :

Policy Points of Relevance

- WTO MCOOL ruling & response(s)
 - Will Mexico ultimately place tariffs on U.S. pork?
 - Limited U.S. consumer awareness ...
- Animal ID & Traceability
 - USMEF study suggests U.S. is falling behind...
- Pending/possible:
 - Animal welfare, climate change, enviro. regs,...
 - Tax code, farm bill, health care, etc.



Is overall uncertainty holding back investment???

- WTO MCOOL ruling, responses, next steps...
- GIPSA “fair market” proposed rules / “anti-competition” listening sessions ...
 - Ultimately little action w/r/t beef cattle industry
 - **BUT** lots of wasted time & energy...
- Environmental regulation concerns persist
- Farm bill, tax code, global macroeconomic uncertainties...
 - *If U.S. cow-calf herd used to expand when Exp. Profit=\$100/cow, what trigger is needed today???*



Bottom-line Summary for Cow-Calf Producers

- New normal includes heightened uncertainty and volatility
 - Signals opportunity to many = expansion
 - Triggers discomfort to many = exit/status quo
 - within industry variations in views and comparative advantages will determine the ability to profit and shape future of industry...
- Industry is dynamic = “keep up or get out”
 - Export growth = reduced domestic per capita consumption, changing customer base ...
 - Increasing demand for “higher quality” for consumers worldwide to justify higher costs of consumed protein...



What To Do?

- Does “on average higher returns are associated with higher risk” resonate w/ you?
- What is your comparative advantage?
 - Being in top 1/3 of cost structure is imperative...
 - Increase herd?; Exit?
- I encourage you to:
 - Recognize this “isn’t your father’s world” anymore and manage accordingly...
 - “Think globally, manage locally, and stay informed”



More information available at:



This presentation is available in PDF format at:

<http://www.agmanager.info/about/contributors/individual/tonsor.asp>

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K-State Decision Aides: Cattle Price Oriented

(<http://www.agmanager.info/Tools/default.asp>)

- Expectations on Future Cash Prices
 - <http://www.beefbasis.com/>
- Examine Feeder Cattle Risk Management Alternatives
 - *“K-State Feeder Cattle Risk Management Tool”*
- Project Premium/Discount of Calf/Steer Attributes
 - *“K-State Feeder Cattle Price Analyzer”*
- Stocker Breakeven Selling/Purchasing Prices
 - *“Cattle Breakeven Selling and Purchase Prices”*



Other K-State Decision Aides

(<http://www.agmanager.info/Tools/default.asp>)

- NPV of Beef Replacements
 - *“KSU-Beef Replacements”*
- Beef Cow Lease Agreements
 - *“KSU-CowLease”*
- Determining Flint Hills Pasture Rents
 - *“KSU-Graze.xls”*





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