Dairy, Swine, and Beef Industry Discussions

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MSU In-Service
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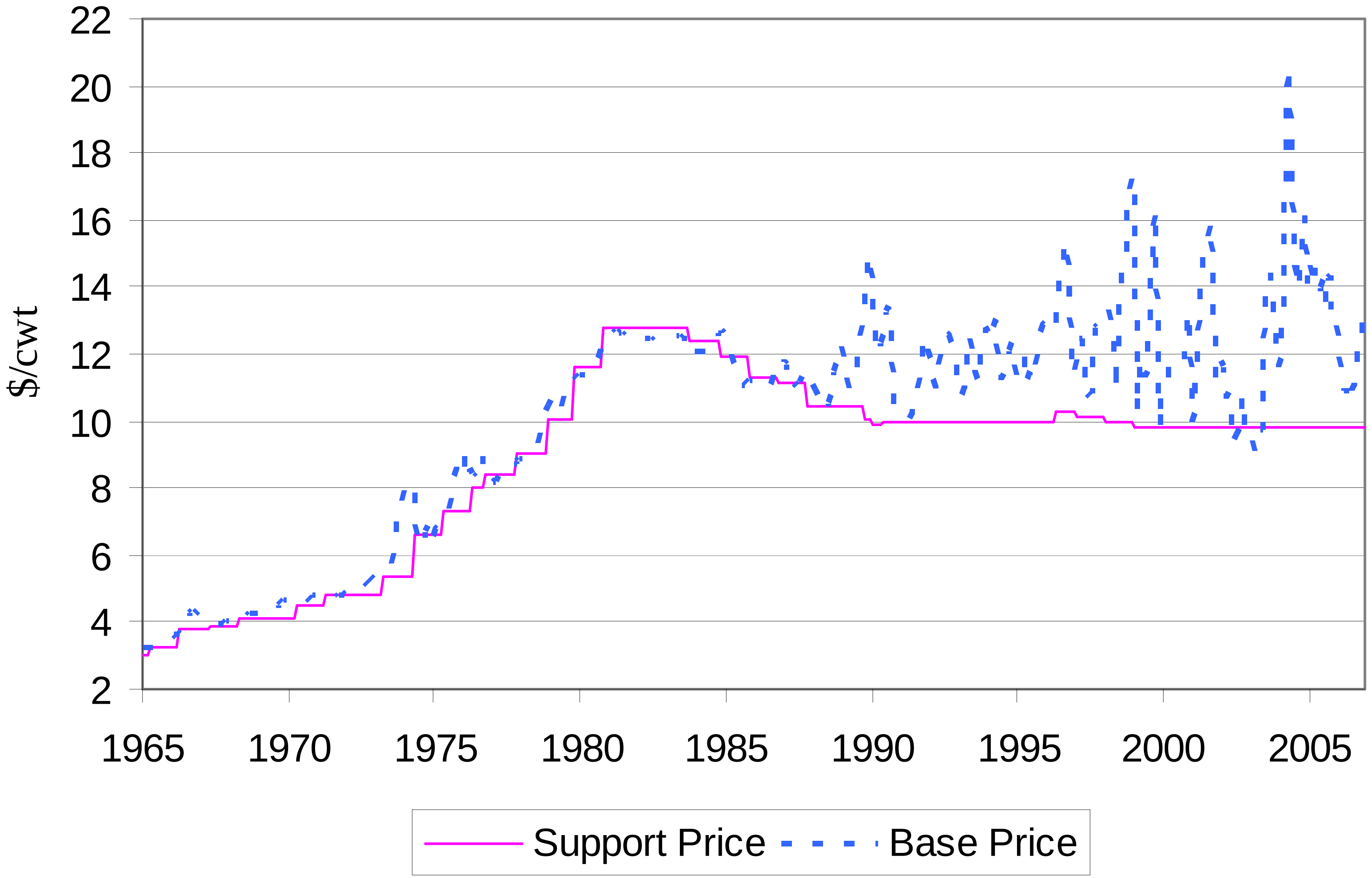
Outline

- Quick outlook & current/future cost/returns summary
- Overview of industry status
- Discussion of possible adjustments
- Comparative advantage discussion

MI Dairy Farm Business Summary

	2001	2002	2003	2004	2005	2006
	(percent)					
Rate of return on assets	7.6	3.2	4.3	7.7	6.3	5.5
Rate of return on equity	8.1	2.1	4.1	9.1	6.9	5.4
OPM	22.3	11.0	14.9	23.3	20.0	19.4
ATO	33.9	29.3	29.0	32.9	31.7	28.2
Milk Price ($/cwt)	15.23	12.47	12.59	16.42	15.70	13.44

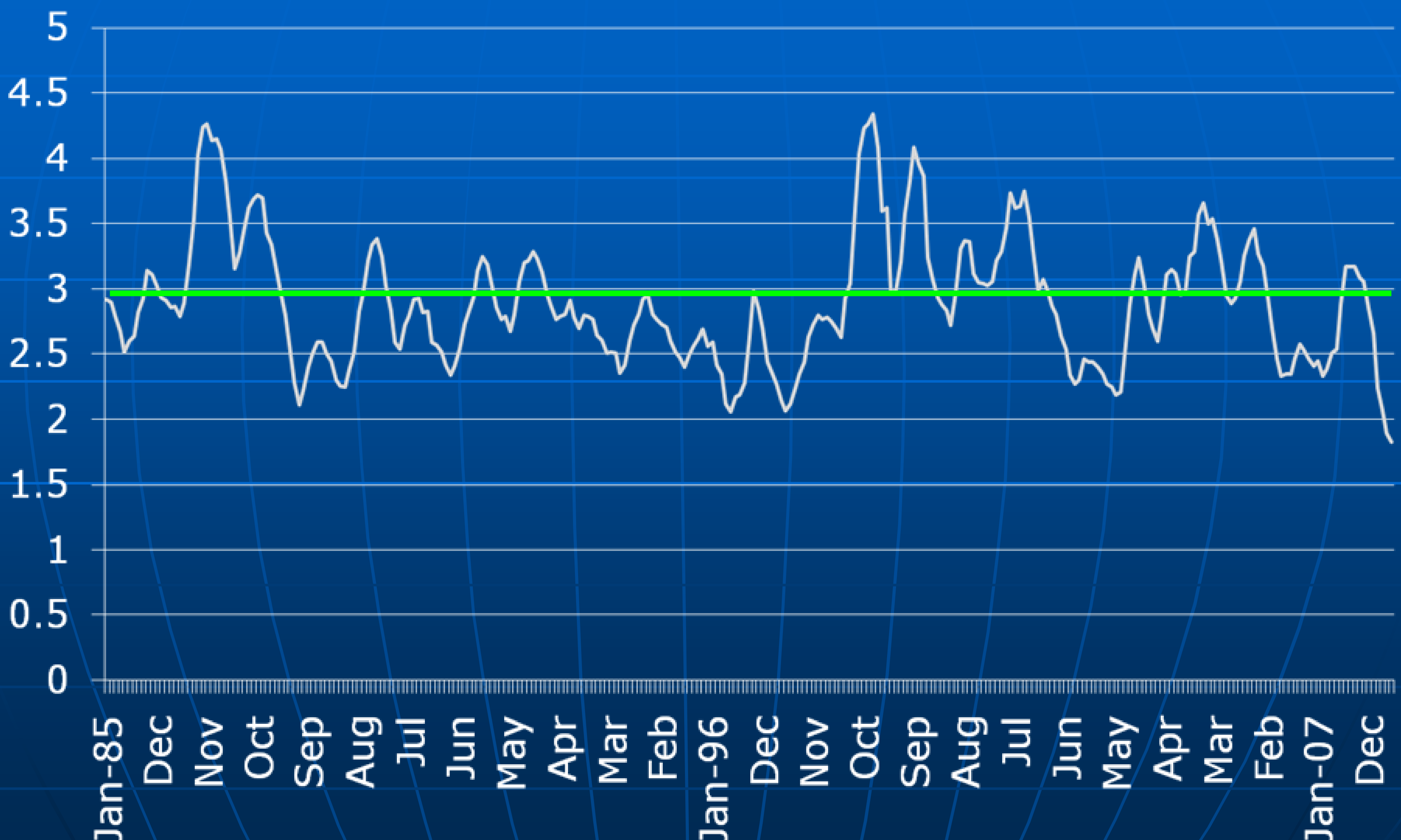


$/cwt
22
20
18
16
14
12
10
8
6
4
2
1965
1970
1975
1980
1985
1990
1995
2000
2005
Support Price
Base Price

MI Dairy Related Prices

	2006	2007	2008?
Milk Price ($/cwt)	$13.44	$19.70	$21.00
Feed Price ($/cwt)	$5.05	$6.81	$8.60 ($10.25)
M:F	2.56	2.80	2.14 (2.05)

US M:F Price Ratio



Sources of Revenue Variation

	Var(DR)	Var(OR)	Var(FP)	Cov(DR, OR)	Cov(DR,FP)	Cov(OR,FP)
	% of total variation					
AGR	94.2	37.4	---	-15.8	---	---
AGR – FP	110.0	37.0	22.4	-13.6	20.4	0.5

	Class III	Class IV	Class III	All Milk
	Futures market		USDA	
Jun	20.20	16.35		
Jul	19.61	16.95	18.60-19.10	19.00-19.50
Aug	20.36	17.25		
Sep	2116	17.35		
Oct	21.05	17.50	17.70-18.50	19.85-19.75
Nov	20.91	18.00		
Dec	20.88	17.90		
Jan 09	20.60	17.10	16.85-17.85	18.15-19.15
Feb	20.45	17.20		
Mar	20.44	17.20	2009	2009
Apr	20.45	17.20	16.80-17.80	17.90-18.90
May	20.43	17.20		

Dairy Outlook Summary

- Current milk prices not sufficient given current feed prices
- Long-term outlooks expect a milk price fall back to $18/cwt area
  - Consistent with current prices being a shock but not consistent with futures

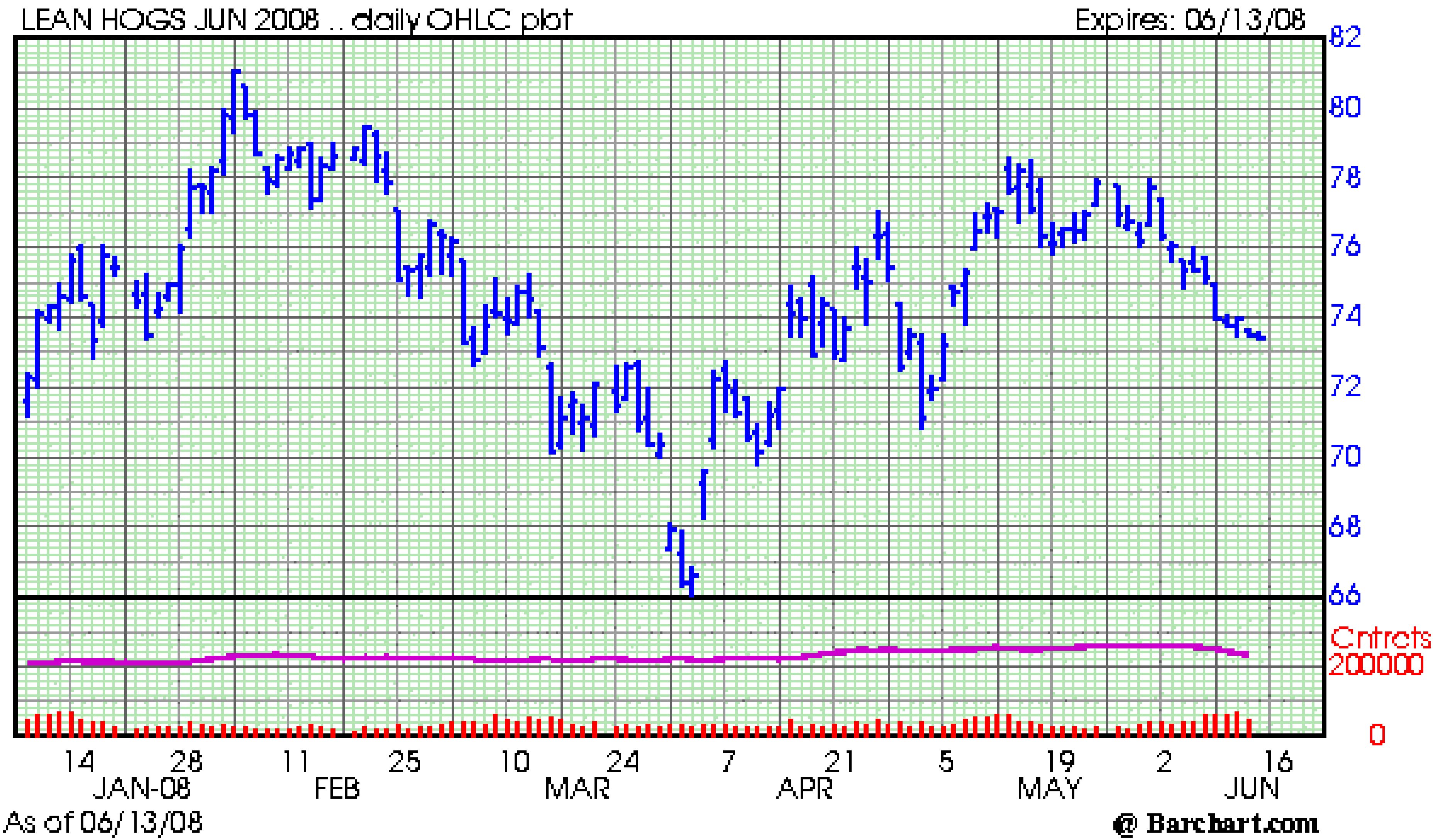
Outlook Summary: Pork/Swine

- Lawrence, ISU:
  - May 2008 average break-even live slaughter price $57/cwt. ($77/carcass cwt)
    - May 2008: +$4.75/head
  - Jan – Apr 08' losses of -$31.60/head (worst 4 months since 1998)
  - Losses likely to resume for rest of 08'

LH Futures: June 2008

18% Increase between 3/30 and 5/25

8% Increase between 3/30 and 6/13



LH Futures: Dec 2008

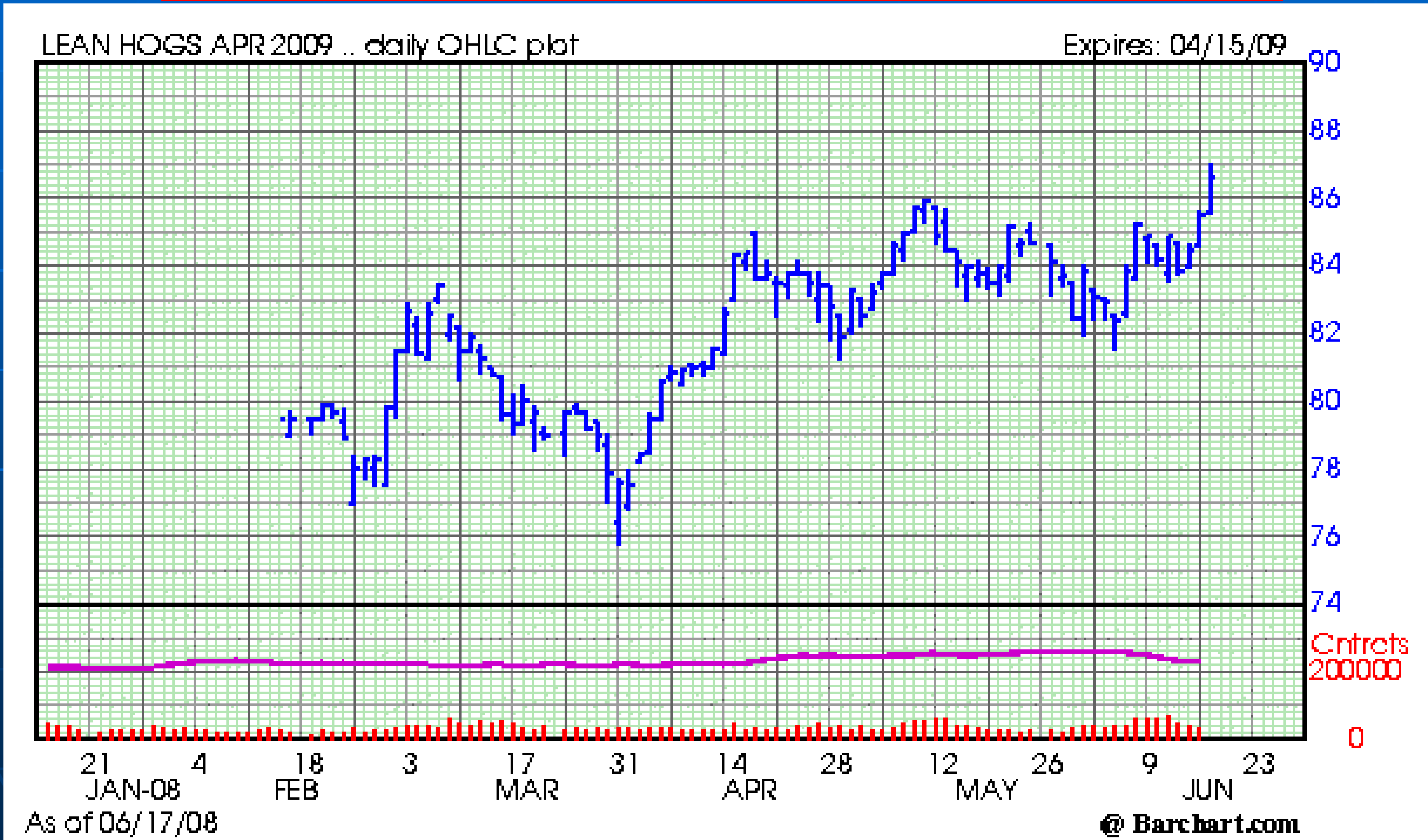
7% Increase between 3/30 and 5/25

12% Increase between 3/30 and 6/17

LH Futures: Apr 2009

9% Increase between 3/30 and 5/25

12% Increase between 3/30 and 6/17



C (E) Futures: July 2008

4% Increase between 3/30 and 5/25

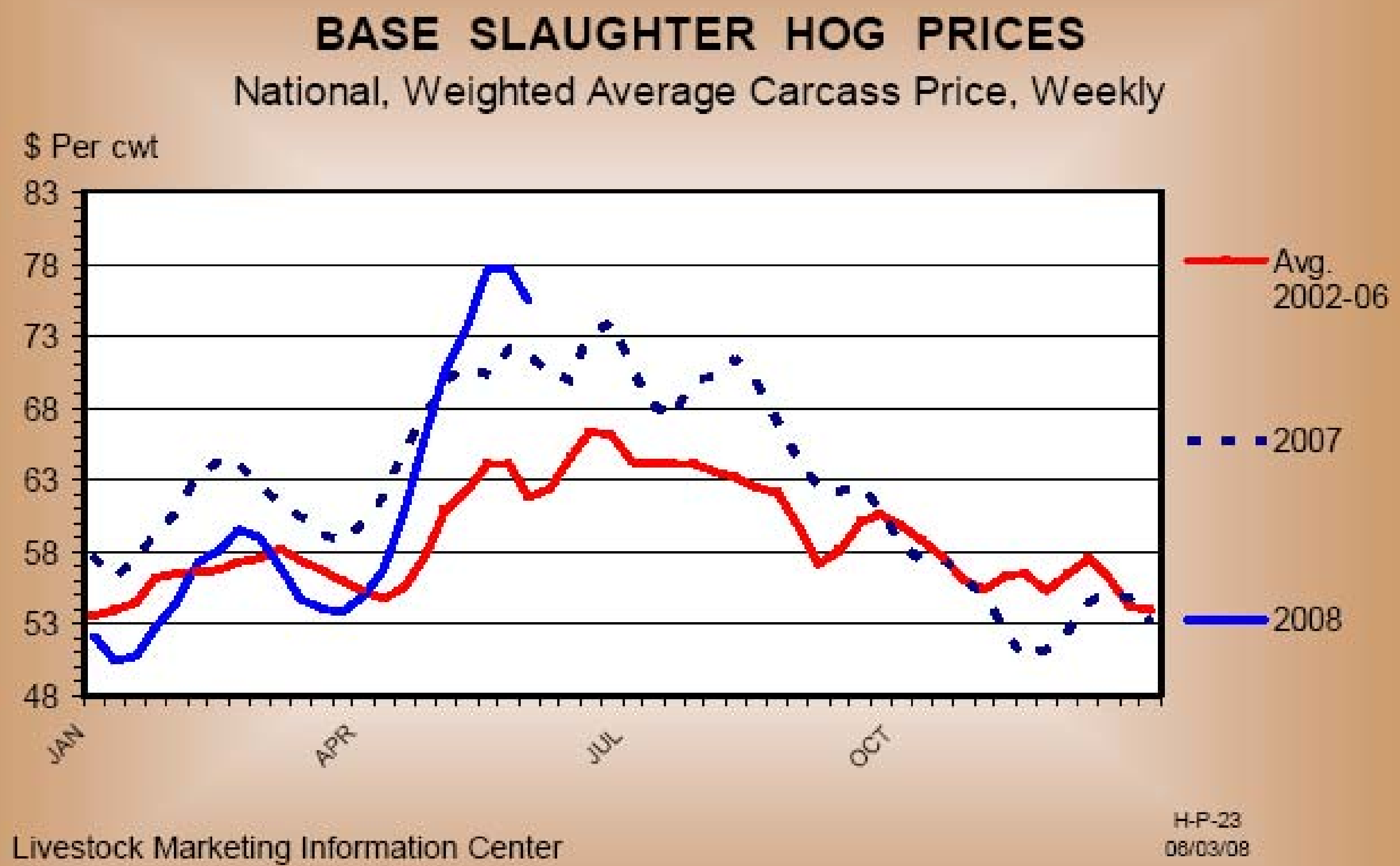
30% Increase between 3/30 and 6/17

Outlook Summary: Pork/Swine

	Unit	Current (week ending 6.14.08)	Year Ago Number	Year Ago % Change
Production				
FI Slaughter	Thou Head	2048	1928	6.20%
Avg. Live Weight	Lbs	268	267	0.40%
Avg. Dressed Weight	Lbs	201	200	0.50%
Pork Production	Million Lbs	410.7	385.6	6.50%
Prices - $/cwt				
Iowa-S. Minn. Base	Weighted Avg	70.65	70.54	0.20%
Natl. Base Carcass	Weighted Avg	72.13	69.79	3.30%
Natl. Net Carcass	Weighted Avg	74.66	72.43	3.10%
Pork Cutout	185 Lbs.	75	76.36	-1.80%
Hams	51-52% Lean	68.06	61.64	10.40%
Loins	51-52% Lean	95.16	92.85	2.50%
Bellies	51-52% Lean	71.3	101.21	-29.60%
Trimmings, 72%	Fresh Combo	60	67.16	-10.70%

	Unit	Current (week ending 6.14.08)	Year Ago Number	Year Ago % Change
Prices				
Corn, Omaha	$ per Bushel	7	4.17	67.90%
SBM, 48% Decatur	$ per Ton	392.2	236.9	65.60%

Source: LMIC, 06.18.08



PORK EXPORTS:
April Exports up 95% from last year (52% on year)
Exported 21% of April's production (Denmark primary loser)

Outlook Summary: Pork/Swine

- Lawrence, ISU:
  - Historical perspective:

	1996-2005	2006	2007	2008 to date	1998
			Avg Profit/Head Sold [range]		
Farrow-Finish	2.05	16.07	3.14	-24.32	-26.88
	[-26.88, 25.57]	[1.71, 40.51]	[-28.82, 23.23]	[-39.49, 4.78]	[-63.68, -3.53]
Farrow-Feeder	3.57	21.10	10.69	-9.02	-16.14
	[-16.14, 24.86]	[12.40, 30.24]	[-1.27, 21.67]	[-18.08, 0.78]	[-28.87, -4.90]
Feeder-Finish	-7.68	-10.92	-10.43	-18.78	-27.96
	[-27.96, 14.81]	[-29.49, 4.73]	[-29.69, 3.21]	[-36.88, 9.34]	[-53.09, -0.09]
			% of Months Profitable		
Farrow-Finish	54%	100%	75%	20%	0%
Farrow-Feeder	67%	100%	92%	11%	0%
Feeder-Finish	33%	17%	25%	20%	0%

  - 11/97 – 1/00 27 months <$0 for Far-Fin
  - 2/04 – 9/07 44 months >$0 for Far-Fin

Outlook Summary: Pork/Swine

- Plain, MU:
  - May 2008 prices will be 08' highs
    - Processors have adjusted, no longer over-bidding
    - Hedge remainder of 08' ?
  - Liquidation momentum/attitude resuming
    - Corn/hog farmers bailing?
    - Will foreign adjustment exceed U.S. adjustment?
    - Contract renegotiations; re-pricing of windows
      - Attitudes have improved making better discussions

Live Cattle Futures (06.17.08 close)

Contract	Last
June '08 (LCM08)	96.325
August '08 (LCQ08)	103.6
October '08 (LCV08)	111.225
December '08 (LCZ08)	112.95
February '09 (LCG09)	115.275
April '09 (LCJ09)	116.55
June '09 (LCM09)	114
August '09 (LCQ09)	115.2
October '09 (LCV09)	116

	% ch 3/30 to 6/17
LC June 08	10%
LC Oct O8	12%
LC Feb 09	12%

Feeder Cattle Futures (06.17.08 close)

Contract	Last
Cash (FCY00)	107.48
August '08 (FCQ08)	110.325
September '08 (FCU08)	112.625
October '08 (FCV08)	113.175
November '08 (FCX08)	113.5
January '09 (FCF09)	113.1
March '09 (FCH09)	112.375
April '09 (FCJ09)	111.5
May '09 (FCK09)	113

	% ch 3/30 to 6/17
FC Aug 08	4%
FC Nov 08	7%

Recent cash FC sales:

USDA National Feeder and Stocker Cattle Summary (week ending June 13)							
State	Volum	Steers			Heifers		
Calf Weight		500-550 lbs.	600-650 lbs.	700-750 lbs.	500-550 lbs.	600-650 lbs.	700-750 lbs.
OK	28,900	$118.04	$113.66	$109.98	$107.84	$105.38	$104.14
MO	28,200	$119.69	$114.80	$108.17	$109.30	$105.96	$104.94
TX	20,000	$109.71	$109.86	$106.92	$105.10	$100.77	$102.33
KY*	16,600	$99-122[1]	$92-115.50[3]	$85-111.75[5]	$86-115.95	$85-109.95[3]	$84-104.60[5]
SD	12,200	$135.04	$125.95	$120.86	$124.81	$118.01	$111.23
AL	10,300	$104-107	$98-103	$91-99	$94-103	$88-93	$84-88
TN*	5,800	$107.58	$102.59	$98.37	$98.07	$93.50	$86.48
KS	5,400	**	**	$110.79	**	**	$105.50

Outlook Summary: Beef/Cattle

	Unit	Current (week ending 6.14.08)	Year Ago Number	Year Ago % Change
Production				
FI Slaughter	Thou Head	686	713	-3.80%
Avg. Live Weight	Lbs	1254	1248	0.50%
Avg. Dressed Weight	Lbs	763	765	-0.30%
Beef Production	Million Lbs	521.5	543.8	-4.10%
Prices - $/cwt				
Live Fed Steer	Weighted Avg	93.11	89.69	3.80%
Dressed Steer	Weighted Avg	147.02	140.55	4.60%
Georgia Feeder Steer	600-700 Lbs	92.93	98.67	-5.80%
Beef Cutout	600-900 Choice	157.03	147.63	6.40%
Rib	Light Choice	239.81	211.51	13.40%
Round	Light Choice	131.8	119.87	10.00%
Chuck	Light Choice	117.58	107.63	9.20%
Trimmings, 50%	Fresh	92.99	59.9	55.20%
Trimmings, 90%	Fresh	165.69	137.2	20.80%
Hide/Offal	Live Steer	11.13	10.3	8.10%

	Unit	Current (week ending 6.14.08)	Year Ago Number	Year Ago % Change
Prices				
Corn, Omaha	$ per Bushel	7	4.17	67.90%
SBM, 48% Decatur	$ per Ton	392.2	236.9	65.60%

Source: LMIC, 06.18.08

Outlook Summary

- Lawrence, ISU:
  - Historical perspective:

	1996-2005	2006	2007	2008 to date	1998
			Avg Profit/Head Sold [range]		
Finishing Calves	31.14	-2.09	-27.86	-103.77	-86.97
	[-86.97, 185.79]	[-66.21, 62.11]	[-84.31, 31.50]	[-133.45, -73.79]	[-125.75, -67.41]
Finishing Yearlings	28.54	-15.04	-25.51	-135.42	-65.65
	[-65.65, 197.51]	[-79.84, 89.26]	[-110.38, 90.62]	[-159.09, -52.31]	[-114.51, -32.00]
			% of Months Profitable		
Finishing Calves	63%	71%	33%	0%	0%
Finishing Yearlings	62%	25%	42%	0%	0%

Longest streaks in 1995-2008 period:

- 11/97 – 2/99 16 months <$0 for Calves
- 1/03 – 6/05 30 months >$0 for Calves

KS Feedlot Expected Returns: NAIBER Calculator

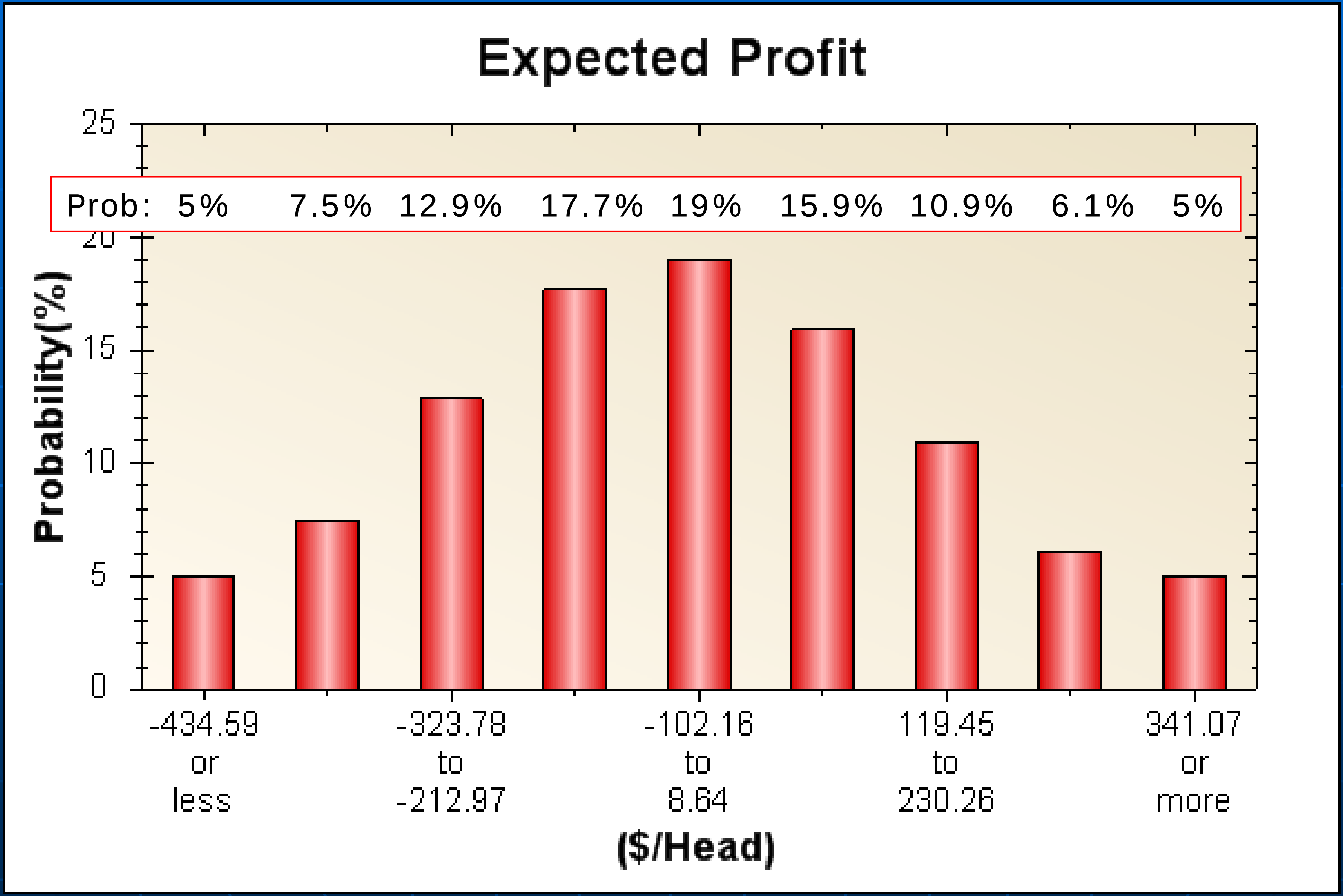
Kansas Feedlot Profitability Calculator:

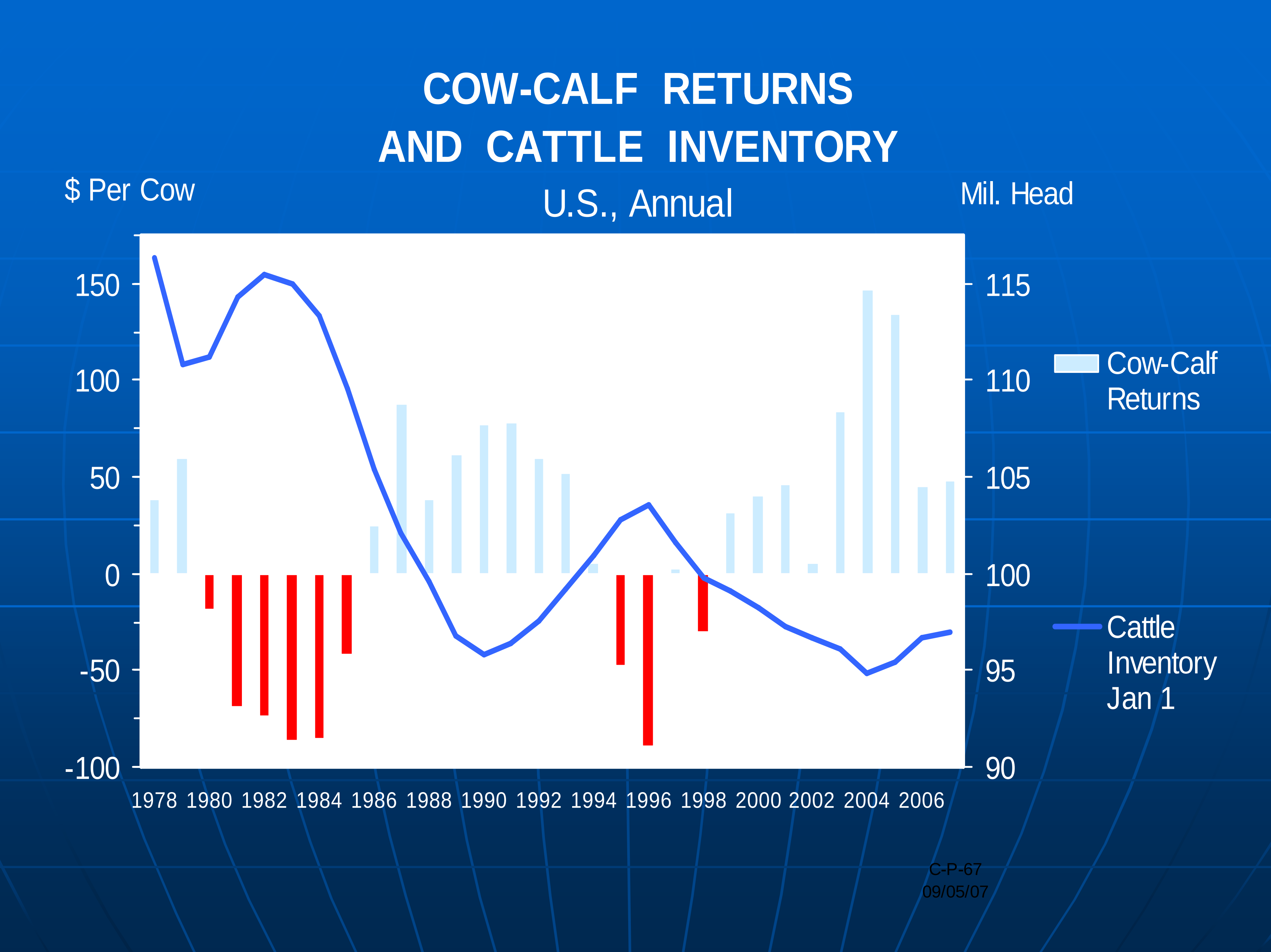
Placed	FC Price	Exp Profit	% <0
6/20/08	$ 110	$ (34.40)	57%
8/20/08	$ 110	$ (13.10)	54%

-- 140 days, 750 lb place, 8.0% int rate

Source: NAIBER, http://www.naiber.org/cattleriskanalyzer/

June 20th Placement: Mean Exp Profit: -$34.40




COW-CALF RETURNS
AND CATTLE INVENTORY
U.S., Annual
$ Per Cow
Mil. Head
150
100
50
0
-50
-100
115
110
105
100
95
90
1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006
Cow-Calf Returns
Cattle Inventory Jan 1
C-P-67
09/05/07

Current Industry Status: Dairy

- “Typical” farm: 200 cows (average 140); 750 acres (own 400)
- Many farms still seeing last year’s feed prices/homegrown feed
- Liquidity issues and volatility different this year

Dairy Decisions

- Exit Decisions
  - Older Facilities + cropland available
  - CWT herd buyouts
- Enterprise Decisions
  - More/less cows
  - How much can you afford to pay in rent to avoid buying feed?

Industry Overview: Swine

- Differences in own-feed production:
  - ERS (2004 ARMS)

Far-Fin	1992	1998	2004
% operation	54	49	31
% mkt hogs sold	65	38	18
% farm-grown grain fed	55	51	38
Feed-Fin			
% operation	19	31	40
% mkt hogs sold	22	55	77
% farm-grown grain fed	45	22	15
All Hogs			
% farm-grown grain fed	49	35	19

  - Lawrence/Grimes (2006 survey)

	Firm Size (thousand head sold annually)					
	1-3	3-5	5-10	10-50	50-500	500+
% Grain/ own firm	74	79	72	58	55	2
% of all hogs	35					

Table 1. Percent of U.S. Hogs Sold Through Various Pricing Arrangements

	1999	2000	2001	2002	2003
Hog or meat market formula	44.2	47.2	54	44.5	41.4
Other market formula	3.4	8.5	5.7	11.8	5.7
Other purchase arrangement	14.4	16.9	22.8	8.6	19.2
Packer-sold				2.1	2.2
Packer-owned				16.4	18.1
Negotiated - spot	35.8	25.7	17.3	16.7	13.5

	2004	2005	2006	2007	2008
Hog or meat market formula	41.4	39.9	41.6	38.3	37.1
Other market formula	7.2	10.3	8.8	8.5	11
Other purchase arrangement	20.6	15.4	16.6	15.2	13.4
Packer-sold	2.1	2.4	2.6	6.7	6.1
Packer-owned	17.1	21.4	20	22.7	23.1
Negotiated - spot	11.6	10.6	10.4	8.6	9.2

*2006-2008 data were reported to USDA vountarily;
2002-2005 data are based on USDA mandatory reports;
1999-2001 are based on Univ. of Missouri industry surveys.
Source: http://agebb.missouri.edu/mkt/verstud08.pdf

Michigan /U.S. Swine Industry Overview

MICHIGAN'S PORTION OF U.S. TOTALS:	
DECEMBER 1 ALL HOGS AND PIGS	
HOGS AND PIGS BREEDING TOTAL	1.62%
HOGS AND PIGS MARKET UNDER 60 POUNDS	1.50%
HOGS AND PIGS MARKET 60-119 POUNDS	1.56%
HOGS AND PIGS MARKET 120-179 POUNDS	1.70%
HOGS AND PIGS MARKET 180 POUNDS AND OVER	1.54%

Michigan /U.S. Swine Industry Overview

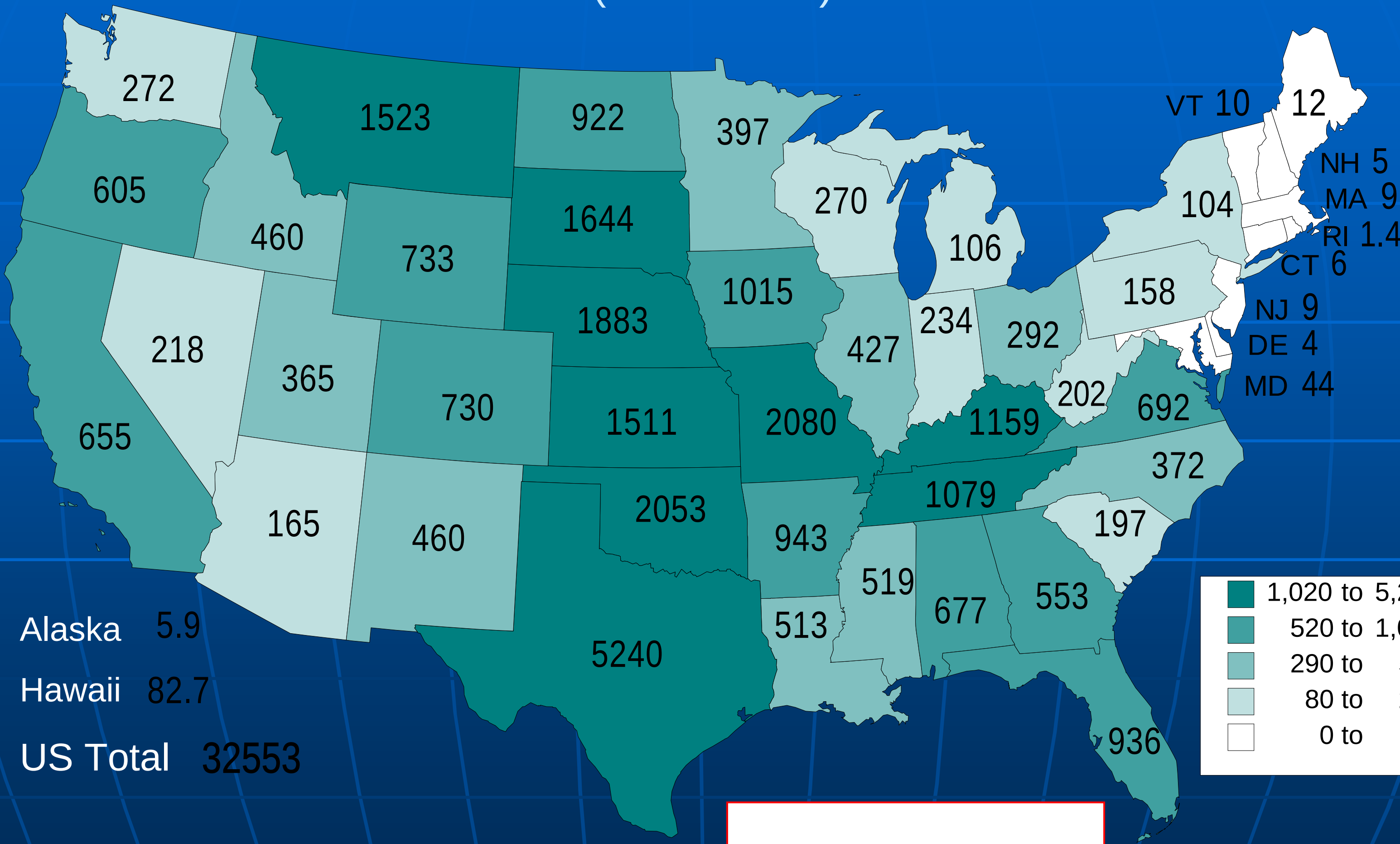
FARROWINGS: NUMBER OF SOWS ANNUAL, DECEMBER-NOVEMBER

	% change from 1987-2007	% change from 1997-2007	% change from 2002-2007	% change from 2005-2007
US TOTAL	5%	4%	4%	4%
IOWA	-34%	-7%	7%	5%
MI	-18%	6%	7%	14%
NC	306%	7%	0%	0%
OK	1667%	110%	13%	-1%

- MI MAY have added sows (proportionally) more aggressively since 2005 profits
  - 197,000 (1997); 195k (2002); 184k (2005); 209,000 (2007)
- How do MI Far-Fin farms compare with IA/OK (& non-US) farms on age, own-feed %, debt positioning,… ???

BEEF COWS THAT HAVE CALVED JANUARY 1, 2008

(1000 Head)



1,020 to 5,240	(9)
520 to 1,020	(11)
290 to 520	(9)
80 to 290	(11)
0 to 80	(10)

Alaska 5.9

Hawaii 82.7

US Total 32553

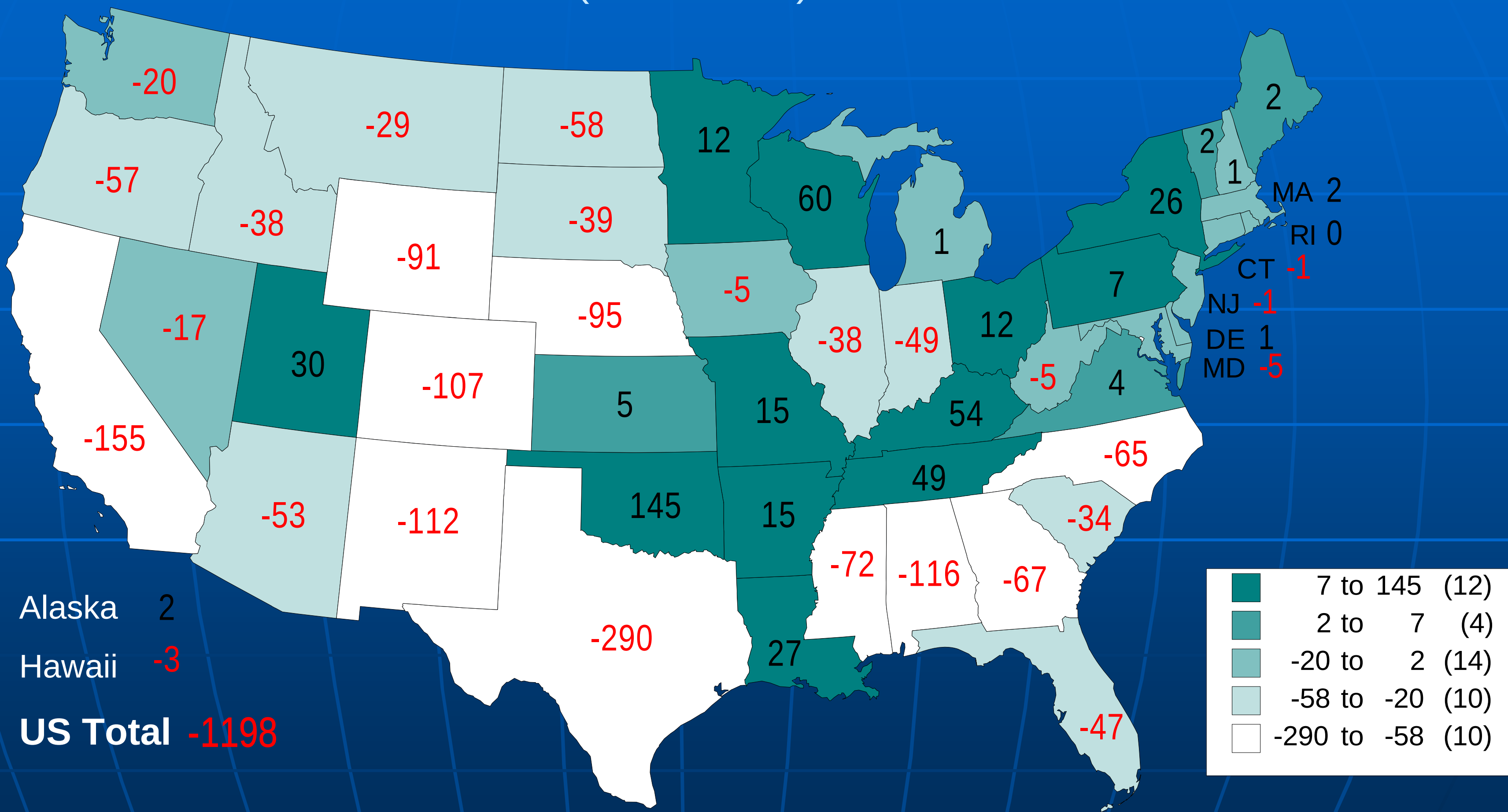
MI Has < 1% of US cows

Livestock Marketing Information Center

Data Source: USDA/NASS

C-N-15
02/01/08

CHANGE IN BEEF COW NUMBERS
JANUARY 1, 1999 TO JANUARY 1, 2008
(1000 Head)

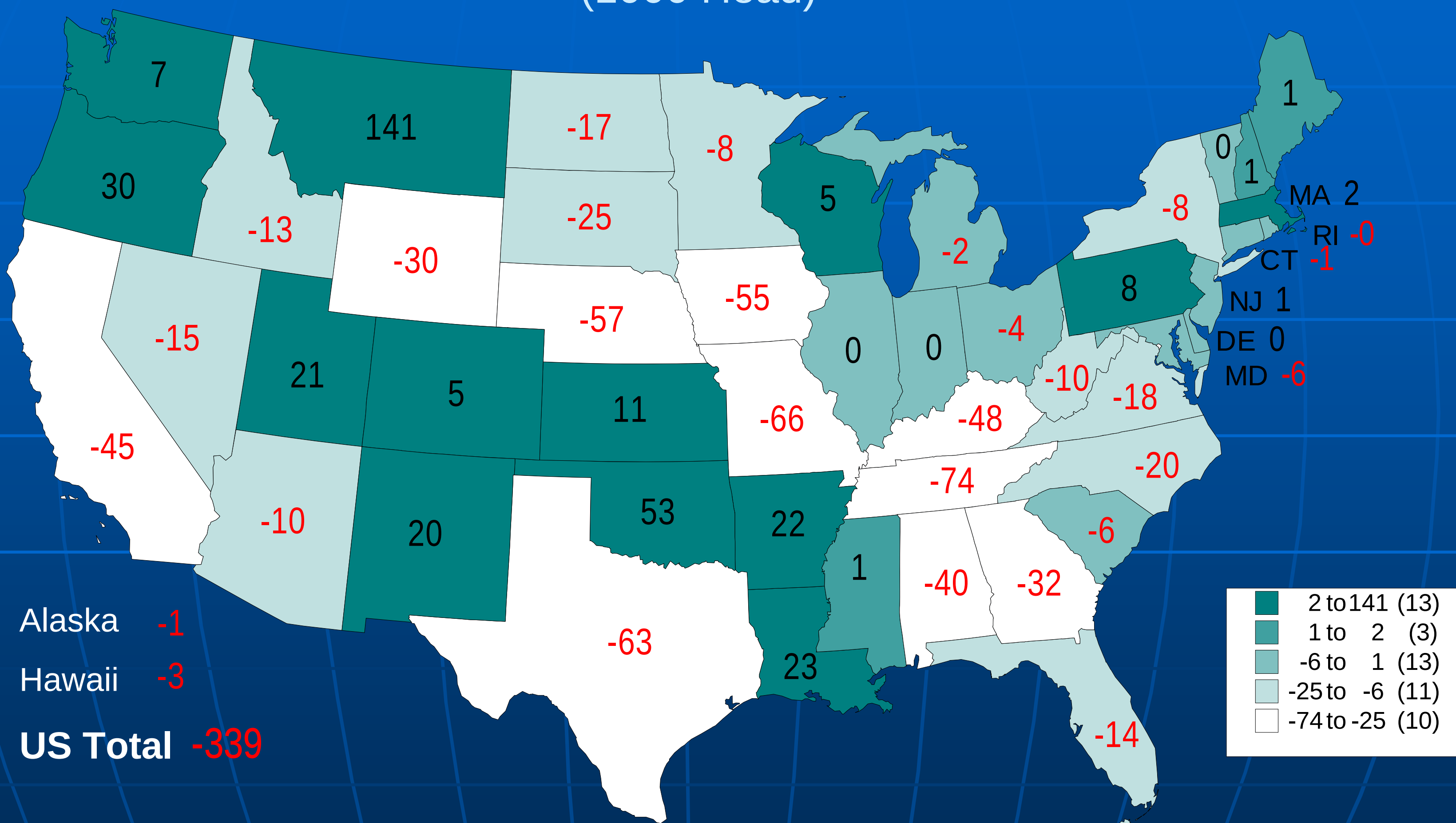


Livestock Marketing Information Center

Data Source: USDA/NASS

C-N-29
02/01/08

CHANGE IN BEEF COW NUMBERS
JANUARY 1, 2007 TO JANUARY 1, 2008
(1000 Head)



Livestock Marketing Information Center

Data Source: USDA/NASS

C-N-28
02/01/08

Comparison of MI/US Changes

CALF CROP

	% change from 1987-2007	% change from 1997-2007	% change from 2002-2007	% change from 2006-2007
US TOTAL	-7%	-4%	-2%	0%
MI	-23%	-3%	9%	3%
MO	1%	-3%	-3%	1%
TX	-3%	-5%	-2%	-2%

CATTLE ON FEED (JAN. 1)

	% change from 1988-2008	% change from 1998-2008	% change from 2003-2008	% change from 2007-2008
US TOTAL	17%	5%	8%	0%
MI	-18%	-18%	-6%	-3%
NE	26%	15%	15%	0%
TX	24%	4%	11%	3%

Possible Adjustments/Decisions

- Exit agriculture / exit livestock and row-crop
  - Each opportunity set is unique (own-feed, next generation, facility/owner age/financials)
- Implement contracts for first time
  - Autonomy vs. survival
- Renegotiate purchasing or window contracts
  - New price points
  - New terms (re-allocate risk considerations)
  - Maybe add revenue or input terms to previously one-sided contracts

Possible Adjustments/Decisions

- Have market hog contract preferences changed?
  - Roe (00' survey of OH, IN, MI producers):
    - Prefer higher ceilings 3 - 5 times as much as higher floors (window contracts)
    - Cooperatives are preferred to feed company and packing plants
    - Prefer shorter contracts, quality premiums were insignificant

Source: Roe, B., T.L. Sporleder, and B. Belleville.
American Journal of Agricultural Economics. 2004. 86:115-123.

Potential Decisions

- Cow-Calf:
  - Raise & sell hay rather than feed hay?
  - Background longer, sell heavier ?
  - Retain ownership ?
- Feedlots:
  - Wait to place? Bid to cover variable costs, buy time until capacity is cut? What portion of own-feed is fed in MI?
- Cow-Calf, Backgrounders, Feedlots:
  - Differentiate/target market
  - Join Alliances

Does "Failing to Cover Variable Costs" imply shut-down???

- Common economic rule
- May/may not be directly applicable,
  - Depends on opportunities and situation
  - Exiting today's swine industry may imply PERMANENT exit
    - Relationships matter more than ever
    - Is "a pig a pig" or "a market a market?"
    - Can I simply shut down & start back up?
    - Planned exits for short periods likely not optimal

Comparative Advantage Discussion: Pork/Swine

- Facility age
  - Does MI have younger farrowing facilities ???
- Own-feed %
  - Does MI feed a higher-than average proportion of its own feed? Should these producers exit?
- Debt positioning
  - Younger barns, more debt? How have 04’-07’ profits been utilized?
- “Externals” also matter
  - Environmental regs (higher manure penalties?), labor availability, odds of g. crate bans, etc.

Comparative Advantage Discussion: Beef/Cattle

- Transportation Costs
  - Escalating penalties for isolated cow-calf producers
  - Will higher transport costs save Eastern Cornbelt beef packing plants?
- Forage issues/concerns relative to U.S.
- Overall feedlot and packing over capacity (ECB liquidation target???)
- “Externals”:
  - TB, environmental regulations,

Tonsor Profitability Analysis (using ISU production coefficients):

- Download at: https://www.msu.edu/user/gtonsor/DecisionTools.html
- Far-Fin, Far-Feed, Feed-Fin enterprises
- Allows for input adjustment:
  - Ration prices, variable costs, etc.
- Identifies output prices necessary to:
  - Cover variable costs
  - Cover total costs
  - Provide a target return over total costs

Lawrence (ISU) Optimal Sales Weight Calculator:

- Download at: http://www.econ.iastate.edu/faculty/lawrence/
- EXCEL LINK
- Scenario:
  - 260 lb animal, sell today or next week?

Weblinks of interest:

- Tonsor’s website (includes this presentation & Excel sheets):
  - http://www.msu.edu/user/gtonsor/

- Tonsor’s List of Resources Noted in the June 18th In-Service
  - https://www.msu.edu/user/gtonsor/Documents/GTT%20Resources_June2008InService.doc

QUESTIONS

DISCUSSION