

Hog Producers: Take Losses Now and Wait for a Better Day?

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Summary

Pork supplies are expected to be at record high levels in 2004, but stronger domestic and foreign demand will help keep prices above year-ago levels. The other major factor impacting the industry will be feed costs.

Costs of production are currently estimated to be near \$50 per live hundredweight. On two previous occasions, costs have reached or exceeded \$50. Those were in 1984 and 1996. In 1996, corn prices were above \$4.00 for an entire calendar quarter (spring of 1996), but meal prices, at about \$265 per ton, were much lower than currently.

Hog prices are not expected to be at the lofty levels of costs, thus losses are anticipated. During the 12 months from April 2004 through March of 2005, costs of production are expected to be \$47.75 compared to hog values of \$43.50 for 51% to 52% lean carcasses, or a loss of about \$4.00 per hundredweight. The largest losses are expected to be \$5 per hundredweight this summer and \$8 per hundredweight in the fall.

Costs over the next year could still be highly variable based upon how weather and international demand factors evolve for corn and soybeans over the next several months. Even higher feed prices will occur if weather concerns reduce U.S. yields. This makes the next 12 months a vulnerable period for hog producer returns. Corn prices of \$4.00 per bushel and \$375 per ton soybean meal would escalate estimated costs to \$55 per live hundredweight.

Lean hog futures are currently above estimated hog prices forecast in this report. Current hedging opportunities for lean hogs, corn, and soybean meal prices could give producers a nearly breakeven situation. The advantage of hedging now is the reduction of risk associated with the potential for catastrophic losses should feed prices continue to move higher this summer and force greater hog liquidation in the summer and fall.

As a general statement, higher feed cost in 2004 will result in higher hog prices from mid-2005 to mid-2007. The challenge is to survive the next year before this two year period of profitability can be reached.

The Numbers

On March 1, USDA reported 1.7 percent fewer animals in the breeding herd. U.S. producers have decreased the breeding herd for the seventh consecutive quarter dating back to September 2002. While the U.S. herd has been dropping, pork production has continued to rise with more pigs per litter, higher weights, and continued increases in live hog imports from Canada. In fact, pork production was at record high levels in 2003, and that number is expected to move even higher in 2004.

A number of states have reduced their breeding herds relative to year-previous levels. These include: Missouri (-8%); Indiana (-6%); Nebraska (-5%); and Iowa and Illinois each (-2%). Kansas has expanded their herd over the past year by six percent and Oklahoma by three percent.

Eastern Corn Belt states continue to have a reduced portion of the U.S. sows. In 1990, the states of Illinois, Indiana, and Ohio had 22 percent of the U.S. breeding herd. That moved to 20 percent in 1995, and has dropped to under 15 percent currently. Breeding herds in both Illinois and Indiana have been reduced by 40,000 animals since 2000.

Producers intend to reduce farrowings by one percent this spring and by two percent in the summer, (Table 1). This will potentially provide smaller pork supplies late in 2004 and early 2005.

More Pork and Higher Prices

Pork production for 2004 is expected to reach nearly 20.4 billion pounds exceeding the record of 19.9 billion from last year. This represents an increase of two percent over last year's record. The larger supplies are a result of the large supply of pigs that were under 120 pounds on March 1 (nearly 3% higher) and from continued growth of imports of Canadian SEW pigs and market hogs as their production expands there (breeding herd up 3%).

Pork supplies in the second and third quarters are expected to be higher by two to three percent, before falling about one percent in the last quarter of 2004 and the first quarter of 2005. (See Tables 3 and 4.)

Market weights are expected to be up only .4 percent or about .85 pounds per carcass in the next 12 months compared to the last 12 month period. This is below the long-term trend in the growth in weights due to higher feed prices. Over the past five years, carcass weights have had an annual average increase near one percent per year.

Live hog prices are expected to average \$43.50 per live hundredweight for 2004, an increase of ten percent over \$39.45 in 2003. The highest prices are expected in the spring and early summer when prices may reach near \$50 for some daily highs. Lower prices are expected in the summer when they are expected to average in the mid-\$40s. Fall prices are still expected to be the lowest of the year and be in the very high \$30s, with recovery in the first quarter of 2005 to the lower \$40s. In the 12 month period from April 1, 2004 through March of 2005, hog prices are expected to average \$43.53.

PRODUCTION		Production	Percent
Year	Quarter	Million#s	Change vs. Year-ago
2001	I	4,805	-0.4%
	II	4,546	1.5%
	III	4,548	-1.3%
	IV	5,239	4.6%
	Year	19,138	1.2%
2002	I	4,779	-0.5%
	II	4,800	5.6%
	III	4,832	6.2%
	IV	5,290	1.0%
	Year	19,701	2.9%
2003	I	4,898	2.5%
	II	4,741	-1.2%
	III	4,807	-0.5%
	IV	5,499	4.0%
	Year	19,945	1.2%
2004	I	5,139	4.9%
	II	4,822	1.7%
	III	4,935	2.7%
	IV	5,469	-0.5%
	Year	20,365	2.1%
2005	I	5,074	-1.3%

PRICES		Liveweight	Percent
Year	Quarter	Price \$/cwt.	Change vs. Year-ago
2001	I	\$42.83	4.1%
	II	\$52.05	3.2%
	III	\$51.05	10.0%
	IV	\$37.30	-8.5%
	Year	\$45.81	2.5%
2002	I	\$39.43	-7.9%
	II	\$34.99	-32.8%
	III	\$33.86	-33.7%
	IV	\$31.39	-15.8%
	Year	\$34.92	-23.8%
2003	I	\$35.38	-10.3%
	II	\$42.64	21.9%
	III	\$42.90	26.7%
	IV	\$36.89	17.5%
	Year	\$39.45	13.0%
2004	I	\$44.24	25.0%
	II	\$47.32	11.0%
	III	\$44.54	3.8%
	IV	\$38.01	3.0%
	Year	\$43.53	10.3%
2005	I	\$41.95	-5.2%

Costs to Exceed Hog Prices

Costs of production have moved up sharply in 2004 as a result of higher feed prices. In addition, weather and grain demand make additional feed cost increases possible into the summer. At the start of the year, cash corn prices in central Indiana and Illinois were about \$2.40 per bushel and have risen to \$3.20 at this writing. High protein meal prices have increased about \$100 per ton. The combination of these two has increased costs of production on a liveweight basis by about \$7.75 since the start of the year. Given current feed ingredient prices, costs of production is now estimated at \$49.50 per live hundredweight and hog producers have entered a period of potentially large losses.

Quarterly hog costs near, or above, \$50 have occurred four other times in 1981, 1984, 1988, and 1996. Three of these costs surges were led by the droughts of 1980, 1983, and 1988. The 1996 high costs were led by small 1995 crops and by extremely strong demand. In three of these four years, the high costs of production led the industry into substantial losses: 1981, 1984, and 1988. Only in 1996 were hog prices sufficiently high to keep the industry from dropping into loss. The period of losses around the high feed prices tends to result in a decline in sow numbers one to two quarters later and a decline in farrowing three to four quarters later. This only occurs if the high feed prices push the industry into losses as appears will be the case this spring and summer.

The problem for the pork industry is that producers generally have to take their financial losses from higher feed prices before they receive compensation in the form of higher hog prices one to two years later. The compensation comes after the herd is reduced during and immediately

following the high price feed period. After the breeding herd is reduced, farrowings drop and pork supplies decline six months later.

Given the expected losses in the second through the fourth quarter of this year, the breeding herd would be expected to decline in the summer and fall, with farrowings dropping in the final quarter of 2004 and into the first-half of 2005. This means that hog prices would respond by moving up to profitable levels by the spring and summer of 2005. Then, a period of profitable hog prices would be expected from mid-2005 through mid-2007.

The point is, pork producers must find a way to get through the high feed price year to earn their compensation in the two years following the high feed price year. Given high feed prices in 2004, this means the profit compensation may come in 2005 and 2006.

Over the 12 months from April 2004 through March of 2005, costs of production are expected to be \$47.75 compared to hog values of \$43.50 for 51% to 52% lean carcasses. This implies a loss of about \$4.00 per hundredweight. Losses are expected to be \$5 per hundredweight in the summer and reach \$8 per hundredweight in the fall. These will be the largest losses since the fall of 2002.

Upcoming potential losses would extend a long-term losing streak. In the three year period from the spring of 2002 through the first quarter of 2005, the industry would have shown losses in 10 of the 12 quarters. While there can be substantial error in these costs estimates, on the surface this suggests that the U.S. industry must continue to cut the herd even more aggressively.

It should be clear that there are many dynamics to both hog prices and feed prices this year. Hog prices are always difficult to predict, but that uncertainty is even greater due to questions of how beef, broiler, and pork trade will unfold this year. Everyone knows the potential volatility that will likely occur in corn and soybean meal prices. Thus, both costs of production and hog revenues have considerable potential to vary from the numbers forecast here.

Exports Carry the Price Load

It is not reduced pork supplies that have given higher than expected late-winter prices, but rather demand. Most likely this is related to both domestic and export demand. Domestic demand may have strengthened due to a strong U.S. economy and rising consumer incomes. Personal incomes have been rising at an annualized rate of near five percent. While we generally don't think pork is as directly impacted by higher incomes as beef, there does seem to be a big surge in pork demand at this time.

In the export market, the data lags by about two months making us unable to evaluate how much of the higher spring prices are due to trade. However, with broiler exports and beef exports largely shut off due to bird flu and BSE, it is likely that most of the demand strength is coming from foreign countries. In January, pork exports were up 14 percent, while imports were unchanged.

It is assumed that foreign countries have substituted more pork purchases from the U.S. for lost beef and broiler imports. In January, the first full month after the discovery of BSE, reduced beef exports led to only a small amount of additional pork exports. U.S. beef exports dropped by 190 million pounds, yet pork exports were only up by 24 million pounds for the month. It was early February when the bird flu hit the U.S., so the data for February will show steep drops in broiler exports in February and March as well. Most likely, pork exports have been remarkable in these two months?

Unfortunately for pork, broiler exports will likely be reinstated over the next several months. In past outbreaks of avian influenza (AI), most countries have moved to a state-by-state restriction. AI has been in the states of Delaware, New Jersey, Pennsylvania, Texas, and Maryland. Mexico has already moved to restrict imports from these states only. If other countries also move to do so, this will allow increased broiler exports in a relatively short period of time. (Portions of this paragraph are based upon information from USDA analyst in the *Livestock, Dairy, and Poultry Outlook*, LDP-M-117, March 23, 2004).

As broiler and beef imports are reinstated, pork exports are likely to decline into the summer and fall. This may mean that hog prices will not be able to sustain the prices of the spring and early summer. Of course, the exact time periods when this might occur are not known at this time.

Alternatives for the Industry

Pork producers face a vulnerable year when feed prices are expected to exceed hog revenues. Hog prices on a liveweight basis for 51% to 52% lean carcasses are expected to average \$43.50 over the coming 12 months with costs of production about \$4.00 higher. The largest losses may come in the fall when they are expected to reach nearly \$8 per live hundredweight. There of course remains the possibility for prices to be much different than currently expected. That uncertainty is both on the lower and the higher side.

Lean hog futures at the current time are providing expected prices higher than price estimates in this report. As of the close of markets on April 5, futures were estimating 51% to 52% carcasses to average about \$46 per live hundredweight. This is \$2.50 higher than my estimates and provides an opportunity for many producers to come close to breaking even over the next 12 months. A general philosophy is to attempt to breakeven during the high price feed year, and then stay unpriced for the following two years as reduced hog populations begin to compensate hog producers for the high feed costs year.

My best thought on timing is for hog prices to move to profitable levels in the summer of 2005 and then for returns to have a positive run from mid-2005 to mid-2007.

In terms of corn and soybean meal prices this spring, I have been suggesting that without weather concerns, spring would bring the highest corn prices of the year, and that soybean meal peaks might be in the spring or early summer.

On the other hand, hog producers must also face the possibility of weather reduced yields. I quote the longer-term odds of a major distortion to the corn or bean crop at about one out of five. The trouble is that if the harmful weather should come this summer, it could mean catastrophic financial losses for hog producers. Catastrophic losses could be \$55 costs with hogs in the mid-\$30 if rapid sow liquidation occurs in the late summer and fall. While the odds do not favor this as the most-likely scenario, most hog producers should consider hedging hogs and feed such that they can nearly lock-in a breakeven situation and avoid the 20 percent odds of catastrophic losses. Taking small losses now by hedging production over the next 9 to 12 months and remaining unpriced for most of 2005 and 2006 is a potential strategy.

The breeding herd size is moving downward with more liquidation likely to follow, regardless of what happens to feed prices. This favors a general tendency toward higher hog prices and better returns into 2005 and 2006.

Table 1. Hogs and Pigs in the United States, March 1, 2004

	2003	2004	2004 as % of 2003
	thousand head		percent
Inventory			
All hogs and pigs	58,183	59,315	101.9
Kept for breeding	6,017	5,915	98.3
Kept for market	52,166	53,399	102.4
Market hogs by weight			
Under 60 pounds	19,086	19,679	103.1
60-119	12,649	12,993	102.7
120-179	10,915	11,088	101.6
180 and over	9,516	9,641	101.3
Sows farrowing			
Sept 03 - Nov 03	2,833	2,841	100.3
Dec 03 - Feb 04	2,769	2,814	101.6
Mar 04 - May 04 ¹	2,885	2,852	98.9
June 03 - Aug 03 ¹	2,906	2,851	98.1
Pigs saved per litter			
Sept 03 - Nov 03	8.86	8.93	100.8
Dec 03 - Feb 04	8.77	8.81	100.5
Pig crop			
Sept 03 - Nov 03	25,094	25,359	101.1
Dec 03 - Feb 04	24,399	24,895	102.0

¹ Intentions

Table 2. U.S. Market Hogs Weighing 60 to 179 Pounds on March 1, and Commercial Slaughter in Calendar Quarter from April through June

Years ^c	Number of Hogs	April-June	Ratio
	60 to 179 Pounds	Commercial Slaughter	
thousand head			
1990	19,811	20,263	102.3
1991	20,351	20,921	102.8
1992	21,645	22,202	102.6
1993	22,479	22,661	100.8
1994	22,620	22,965	101.5
1995	23,092	23,644	102.4
1996	22,075	22,201	100.6
1997	21,485	21,831	101.6
1998	23,565	23,628	100.3
1999	23,894	24,288	101.7
2000	22,961	23,105	100.6
2001	23,222	23,280	100.2
2002	24,086	24,280	100.8
2003	23,564	23,922	101.5
2004	24,081	24,288	100.9 ^b

^a Projected

^b Mean of previous three years

Table 3. U.S. Sow Farrowings and Pig Crop Compared to U.S. Commercial Slaughter (1,000 head), with 7-month Lag 1992 to 2004

Year	Sows Farrow	Pig Crop	Ratio	Commercial		
				Year	Slaughter	Ratio
September-November				April-June		
1992	2,992	24,086	8.05	1993	22,661	94.1
1993	2,982	24,003	8.05	1994	22,965	95.7
1994	2,997	24,517	8.18	1995	23,646	96.5
1995	2,815	23,479	8.34	1996	22,201	94.6
1996	2,731	23,327	8.54	1997	21,834	93.6
1997	2,939	25,494	8.67	1998	23,631	92.7
1998	2,993	25,902	8.66	1999	24,292	93.8
1999	2,844	24,973	8.78	2000	23,105	92.5
2000	2,838	25,112	8.85	2001	23,280	92.7
2001	2,889	25,492	8.82	2002	24,280	95.2
2002	2,833	25,094	8.86	2003	23,922	95.3
2003	2,841	25,359	8.93	2004	24,243	95.6 ^a
December-February				July-September		
92/93	2,808	22,871	8.15	1993	22,777	99.6
93/94	2,885	23,368	8.10	1994	23,673	101.3
94/95	2,886	23,851	8.27	1995	23,264	97.5
95/96	2,735	23,054	8.43	1996	22,711	98.5
96/97	2,684	23,164	8.63	1997	22,679	97.9
97/98	2,929	25,480	8.70	1998	25,038	98.3
98/99	2,891	25,247	8.73	1999	24,960	98.9
99/00	2,798	24,522	8.76	2000	24,097	98.3
00/01	2,748	23,963	8.72	2001	23,635	98.6
01/02	2,835	24,857	8.77	2002	25,120	101.1
02/03	2,769	24,399	8.81	2003	24,747	101.4
03/0	2,814	24,895	8.85	2004	25,268	101.5 ^a
March-May				October-December		
1992	3,368	27,208	8.08	1992	25,138	92.4
1993	3,220	26,135	8.12	1993	24,574	94.0
1994	3,390	27,984	8.26	1994	26,322	94.1
1995	3,170	26,373	8.32	1995	25,198	95.5
1996	2,930	24,833	8.48	1996	23,833	96.0
1997	2,911	25,229	8.67	1997	25,152	99.7
1998	3,086	26,989	8.75	1998	27,584	102.2
1999	2,986	26,272	8.80	1999	26,732	101.8
2000	2,885	25,565	8.86	2000	25,714	100.6
2001	2,870	25,509	8.89	2001	26,470	103.8
2002	2,941	26,001	8.84	2002	26,715	102.7
2003	2,885	25,627	8.88	2003	27,608	107.7
2004 ^a	2,852	25,440	8.92	2004	27,373	107.6 ^a
June-August				January-March		
1992	3,020	24,590	8.14	1993	23,057	93.8
1993	2,972	24,041	8.09	1994	22,746	94.6
1994	3,107	25,547	8.22	1995	24,229	94.8
1995	2,976	24,813	8.34	1996	23,650	95.3
1996	2,718	23,244	8.55	1997	22,342	96.1
1997	2,946	25,696	8.72	1998	24,776	96.4
1998	3,054	26,634	8.72	1999	25,571	96.0
1999	2,920	25,862	8.86	2000	25,019	96.7
2000	2,889	25,548	8.84	2001	24,578	96.2
2001	2,878	25,539	8.87	2002	24,148	94.6
2002	2,883	25,725	8.92	2003	24,654	95.8
2003	2,906	25,869	8.90	2004	25,725	99.4
2004 ^a	2,851	25,459	8.93	2005	25,332	99.5 ^a

^a Estimates

^b Mean of previous three years

Table 4. U.S. Commercial Slaughter, Carcass Weights, and Quarterly Pork Production 1991-2005

Year	Quarter	Commercial Slaughter (1,000 head)	Carcass Weight Per Hog	Pork Production (million #'s)	Percent Change Year-Ago
1991	I	21,508	181.4	3,902	0.0
	II	20,921	181.3	3,792	4.0
	III	21,371	178.8	3,822	5.0
	IV	24,365	182.0	4,434	8.0
1992	I	23,802	181.5	4,321	10.7
	II	22,202	181.7	4,033	6.4
	III	23,746	179.6	4,264	11.6
	IV	25,138	181.7	4,567	3.0
1993	I	23,057	182.5	4,207	-2.6
	II	22,661	183.2	4,151	2.9
	III	22,777	181.7	4,138	-3.0
	IV	24,573	184.5	4,534	-0.7
1994	I	22,746	183.9	4,182	-0.6
	II	22,965	184.6	4,240	2.1
	III	23,673	182.7	4,326	4.5
	IV	26,322	186.6	4,913	8.4
1995	I	24,229	185.2	4,488	7.3
	II	23,646	185.8	4,394	3.6
	III	23,264	182.3	4,240	-2.0
	IV	25,198	186.1	4,690	-4.5
1996	I	23,650	185.6	4,389	-2.2
	II	22,201	184.9	4,104	-6.6
	III	22,711	182.4	4,143	-2.3
	IV	23,833	186.7	4,449	-5.1
1997	I	22,342	187.7	4,194	-4.4
	II	21,834	187.4	4,091	-0.3
	III	22,666	185.0	4,196	1.3
	IV	25,152	189.5	4,766	7.1
1998	I	24,776	189.2	4,688	11.8
	II	23,631	187.5	4,429	8.3
	III	25,038	184.7	4,625	10.2
	IV	27,523	188.9	5,239	9.9
1999	I	25,571	190.3	4,865	3.8
	II	24,292	190.6	4,630	4.5
	III	24,960	187.2	4,672	1.0
	IV	26,732	191.2	5,110	-2.5
2000	I	25,019	192.8	4,824	-0.8
	II	23,107	193.8	4,478	-3.3
	III	24,097	191.1	4,606	-1.4
	IV	25,714	194.8	5,010	-2.0
2001	I	24,578	195.5	4,805	-0.4
	II	23,280	195.3	4,546	1.5
	III	23,635	192.4	4,548	-1.3
	IV	26,470	197.9	5,239	4.6
2002	I	24,148	197.9	4,780	-0.5
	II	24,280	197.6	4,797	5.5
	III	25,120	192.4	4,832	6.2
	IV	26,715	196.7	5,255	0.3
2003	I	24,654	198.7	4,898	2.5
	II	23,922	198.2	4,741	-1.2
	III	24,747	194.2	4,807	-0.5
	IV	27,608	198.9	5,499	4.6
2004	I ^p	25,725	199.4	5,139	4.9
	II ^{ac}	24,266	198.7	4,822	1.7
	III ^a	25,268	195.3	4,935	2.7
	IV ^a	27,373	199.8	5,469	-0.5
2005	I ^a	25,332	200.3	5,074	-1.3

^a Projected

^c Average of the two estimation methods (Table 2 and 3)

^p Preliminary

Table 5. Actual and Forecast Hog Prices, Lean Carcass Prices, and Retail Pork Prices^a

Year	Quarter	Barrow and Gilts 6-Mkt Price (\$/cwt)	Lean Value (Live Price/74 yield) (\$/carcass cwt)	Retail Pork ¢/carcass cwt
1991	I	\$51.50	\$69.59	215.2
	II	\$53.34	\$72.08	213.2
	III	\$50.85	\$68.72	214.6
	IV	\$39.84	\$53.84	204.6
1992	I	\$38.68	\$52.27	198.9
	II	\$44.83	\$60.58	195.9
	III	\$43.86	\$59.27	200.6
	IV	\$41.84	\$56.54	197.0
1993	I	\$43.96	\$59.41	194.6
	II	\$46.83	\$63.28	194.3
	III	\$47.49	\$64.18	200.2
	IV	\$43.23	\$58.42	201.3
1994	I	\$45.19	\$61.07	200.8
	II	\$42.44	\$57.35	198.8
	III	\$40.07	\$54.15	199.0
	IV	\$30.56	\$41.30	193.6
1995	I	\$38.19	\$51.61	191.6
	II	\$38.57	\$52.12	190.2
	III	\$48.32	\$65.30	195.6
	IV	\$42.86	\$57.92	201.8
1996	I	\$45.33	\$61.26	206.3
	II	\$54.84	\$74.11	214.9
	III	\$57.96	\$78.32	230.4
	IV	\$55.10	\$74.46	231.9
1997	I	\$51.06	\$69.00	231.0
	II	\$56.41	\$76.23	229.7
	III	\$54.45	\$73.58	234.5
	IV	\$43.69	\$59.04	231.0
1998	I	\$34.74	\$46.95	233.0
	II	\$39.42	\$53.27	226.9
	III	\$33.95	\$45.88	231.0
	IV	\$19.30	\$26.08	226.9
1999	I	\$28.83	\$38.96	235.8
	II	\$35.18	\$47.54	238.4
	III	\$35.70	\$48.24	246.4
	IV	\$36.29	\$49.04	245.2
2000	I	\$41.14	\$55.59	249.8
	II	\$50.43	\$68.15	257.3
	III	\$46.43	\$62.74	264.3
	IV	\$40.78	\$55.11	261.3
2001	I	\$42.83	\$57.88	262.5
	II	\$52.05	\$70.34	267.0
	III	\$51.05	\$68.99	275.0
	IV	\$37.30	\$50.41	273.0
2002	I	\$39.43	\$53.28	270.9
	II	\$34.99	\$47.28	267.7
	III	\$33.86	\$45.76	264.1
	IV	\$31.34	\$42.35	260.2
2003	I	\$35.38	\$47.81	260.9
	II	\$42.64	\$57.62	262.2
	III	\$42.90	\$57.97	269.8
	IV	\$36.89	\$49.85	270.2
2004	I ^p	\$44.24	\$59.78	269.2
	II ^a	\$47.32	\$63.95	
	III ^a	\$44.54	\$60.19	
	IV ^a	\$38.01	\$51.36	
	I ^a	\$41.95	\$56.69	

^a Predicted prices for 2004 (I) forward are made with two equations with the results averaged.

^p Preliminary