

Hog Prices Lag, but Hope Remains

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A profitable year for hog producers does not appear to be in the cards at this time. After much anticipation of a hog prices recovery to near \$40, that estimate is now \$37.50, a level that will leave many producers with another year of loss. However, the worst days of 2003 may be over for pork producers as hog prices may still provide modest profits in the spring and early summer before sinking back below costs of production in the fall.

The breeding herd is down by 4.5%, and farrowing intentions for this spring and summer are down about 3% pointing the way to smaller animal numbers later this year and into 2004. The decline in the breeding herd is widespread across the country with the exception of Minnesota where the herd is up 4%.

Costs of production have been estimated to be near \$40 per live hundredweight since last summer's drought related corn price increase. Costs are not expected to drop substantially until favorably large new crop corn and soybean crops can be assured. This will likely be into the early or mid-summer. By fall, a normal yield situation could drop costs about \$2 per hundredweight to around \$38, but a return to the mid \$30 costs of the 1998 to 2001 crops is not expected.

Thus, it appears to be a year of improvement, but the breeding herd will have to be reduced even more before hog producer profitability can return. In historic cycles, this has tended to occur, and thus 2004 could be the best year for returns on this cycle.

The Numbers

Financial losses over the past year have continued to discourage producers and as a result they have dropped the size of the breeding herd which is currently down 4.5% from the same period last year. This is the third quarterly report in which the size of the breeding herd has shown a decrease dating back to September 2002. I expect the breeding herd to continue dropping through the remainder of the year with farrowings dropping through the first-half of 2004.

Minnesota was the only major production state to have an increase in the size of its breeding herd which was up 4%. Oklahoma and Texas breeding herds remained unchanged. Illinois and Iowa herds were down 7%, Indiana was down 6%, Nebraska was down 4% and both Missouri and Ohio were off 3%. Producer decisions to decrease their herds may have been influenced in the Eastern Corn Belt by the small corn crop (121 bushel average in Indiana and only 88 bushels per acre in Ohio). However, the record corn crop in the Western Corn Belt does not explain hog inventory decreases in Iowa (165 bushels per acre).

The market herd was reported to be down only 1.6%. There is some hopeful news in the weight breakdowns as it would appear that the number available for slaughter should soon

begin to drop. The 180 pound and larger category was more than 1% greater than last year at this time. However, most of these hogs should have been marketed by early April. Pigs that will come to market in April through August were down from 2% to 2.5%. If so, this could finally mean that slaughter supplies will soon be coming down, and provided the needed stimulus for rising prices.

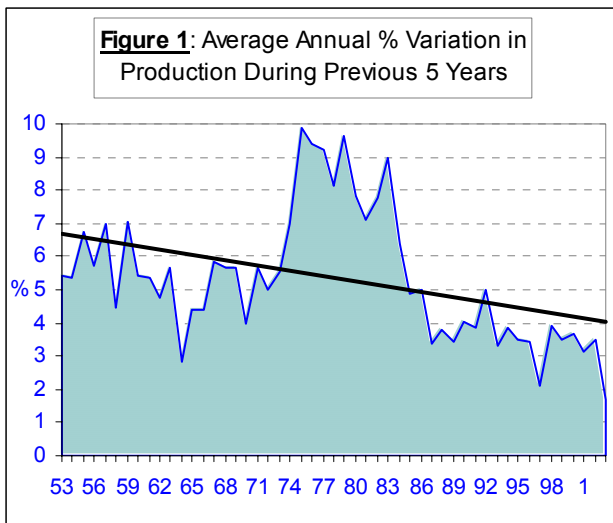
Producers also say they will reduce farrowings further in coming months. After reducing farrowings by 2.4% this past winter, they say they will cut farrowings this spring by 3.4% and by 3.3% in the summer quarter. If so, this will mean smaller pork supplies at least through the first quarter of 2004.

Why the Depressed Prices?

Hog prices have continued to disappoint not only producers but also price analyst, and traders at the Chicago Mercantile Exchange who had felt that recovery would be underway early this year. So far, it has not happened. What are some of the reasons, especially given that beef prices have been high? Greater supply than expected is the word so far this year. In the first-quarter of 2003, it was expected that pork production would be about .4%. However, actual production was up 2.2%. This was a result of about 1.5% more animals coming to market than anticipated, suggesting that USDA has undercounted market hogs perhaps by about 1.5%. In March, the slaughter rate was up by 1.8% and the USDA over 180 pound pigs were up 1.2%, again suggesting a modest undercount in the current data.

In the year-to-date period, pork supplies are up 2.2% and hog prices (national base 51% to 52% lean on a live weight basis) in the first quarter of 2003 averaged \$35.26 per live hundredweight. This was 11% lower than the \$39.43 of the first quarter of 2002. Seemingly, prices are lower than the supplies would indicate and thus we would assume that some negative impact has been felt from the weakness in the general economy. Cold storage stocks are about 2% greater than year-ago levels.

The question is asked of whether producers are less willing to adjust their production today



as compared to historic periods? The answer seems to be a distinct YES! Some light can be shed on this question by looking at the average yearly variability in production. In **Figure 1**, I have plotted the average annual variation in production over the previous 5 years. So for example, in 1990, this number is about 5%. This means that in the years from 1986 to 1990, the average variation in production was 5% per year. You can see the overall trend since the 1950s is to have a less variable year-to-year fluctuation in production. In fact as of

2003, that variation has dropped to only a 1.7% annual variation in production over the 1999 through 2003 period.

The reasons seem to be that the industry is much more capital intensive and more specialized today. This means that it is more difficult to get in and get out of the industry and that it may require longer periods of profits, or losses to get supply adjustment. In addition, the majority of hog facilities in the country are less than 10 years old, making it difficult for those producers to reduce production or leave the industry.

Low prices are likely related to this unwillingness, or the financial inability of producers to adjust. However, if it were just this factor, one would also expect to see the period of profits be higher than usual and last for longer. That does not seem to be the case, and therefore one has to assume that there is also an excess production problem in relationship to total demand.

Supplies Start Dropping and Some Price Recovery

If we are to trust the USDA inventory report, the number of animals available to the market should start dropping immediately. The report would suggest that April and May supplies should be down about 2.5%, and be down about 2% in the June to August period. As shown in Tables 3 and 4, I expect pork supplies to be down about 2% for the remainder of 2003, and down somewhat over 2% in the first quarter of 2004.

Market weights are expected to increase with moderation in feed prices. Last summer and fall marketing weights actually fell as producers responded to higher corn prices. However by this past winter, weights began creeping higher again. It is anticipated that market weights could rise by over 1.0% or more this summer and continue into the fall and winter assuming a normal crop yield situation.

Estimated supplies and projected prices are shown below. The spring rally should allow prices to average near \$40. Summer prices will likely drop a couple of dollars from the spring quarter average, with fall prices moving back into the mid-\$30s. The higher \$30s is the call for the 1st quarter of 2004..

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	4,885	2.2%
	II	4,661	-2.9%
	III	4,736	-2.0%
	IV	5,186	-2.0%
Year		19,468	-1.2%
2004	I	4,771	-2.3%

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%
		\$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%
		\$34.92	-23.8%
2003	I	\$35.26	-10.6%
	II	\$40.59	16.0%
	III	\$38.45	13.6%
	IV	\$35.86	14.2%
		\$37.54	7.5%
2004	I	\$38.70	9.8%

Implications

It has now been 13 months of loss for average costs pork producers. Pork supplies have not begun to decrease yet, but current inventory numbers suggests that this reduction should begin in April and continue into 2004. The breeding herd has been down now for three quarterly reports, and producers' intentions are indicating about 3% fewer sows will be farrowed this spring and summer.

Unfortunately, it appears that 2003 will be another year for average losses which I estimate at nearly \$5 per hog. However, most of this loss will be sustained in the first four months of the year. The period from May and forward may well average a small profit.

The decline in the breeding herd will need to be larger to return prices to profitable levels. Discouragement among producers currently is high, and it is therefore likely that the breeding herd will in fact continue to drop even more. This may be by as much as 5% to 6% by the end of the year.

While costs of production are expected to moderate this year, growing season concerns will likely keep feed prices somewhat high until mid summer when a reasonable size crop can begin to be better assured.

Average and low costs producers should continue to stay in the industry and anticipate a much better year in 2004, however, some additional producers will have to get out, or reduce their production in order to provide a breakeven world for remaining producers.

Table 1. Hogs and Pigs in the United States, March 1, 2003

	2001	2002	2002 as % of 2001
	thousand head		percent
Inventory			
All hogs and pigs	59,248	58,107	98.1
Kept for breeding	6,236	5,956	95.5
Kept for market	53,011	52,151	98.4
Market hogs by weight			
Under 60 pounds	19,487	19,110	98.1
60-119	12,975	12,655	97.5
120-179	11,172	10,894	97.5
180 and over	9,377	9,492	101.2
Sows farrowing			
Sept 02 - Nov 02	2,889	2,817	97.5
Dec 02 - Feb 03	2,836	2,767	97.6
Mar 03 - May 03 ¹	2,943	2,842	96.6
June 03 - Aug 03 ¹	2,887	2,792	96.7
Pigs saved per litter			
Sept 02 - Nov 02	8.82	8.83	100.1
Dec 02 - Feb 03	8.74	8.81	100.8
Pig crop			
Sept 02 - Nov 02	25,492	24,892	97.6
Dec 02 - Feb 03	24,794	24,374	98.3

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	23,273	100.2
2002	24,147	24,290	100.6
2003	23,549	23,662	100.5 ^d

^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 1991 to 2003

Year	Sows Farrow	Pig Crop	Ratio	Year	Commercial Slaughter	Ratio ^b
September-November				April-June		
1991	2,969	23,427	7.89	1992	22,202	94.8
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	23,107	92.5
2000	2,838	25,112	8.85	2001	23,273	92.7
2001	2,889	25,492	8.82	2002	24,290	95.3
2002 ^a	2,817	24,892	8.83	2003	23,273	93.5
December-February				July-September		
91/92	2,892	23,258	8.04	1992	23,746	102.1
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	23,631	98.6
01/02	2,836	24,794	8.74	2002	25,117	101.3
02/03 ^a	2,767	24,374	8.81	2003	24,226	99.4
March-May				October-December		
1991	3,287	26,158	7.96	1991	24,367	93.2
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	26,465	103.7
2002	2,943	25,959	8.82	2002	26,714	102.9
2003 ^a	2,842	25,294	8.90	2003	25,904	102.4
June-August				January-March		
1991	3,105	24,499	7.89	1992	23,802	97.4
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	24,574	96.2
2001	2,878	25,539	8.87	2002	24,139	94.5
2002	2,887	25,700	8.90	2003	24,618	95.8
2003 ^a	2,792	24,905	8.92	2004	23,784	95.5

^aEstimated

^bLast entry is the average of previous three years

Table 4. U.S. Commercial Slaughter, Carcass Weights, and Quarterly Pork Production 1990-2003

Year	Quarter	Commercial Slaughter (1,000 head)	Carcass Weight Per Hog	Pork Production (million #'s)	Percent Change Year-Ago
1990	I	21,879	178.3	3,902	+4
	II	20,257	179.9	3,645	-7.2
	III	20,350	178.8	3,639	-4.0
	IV	22,628	181.4	4,105	-1.2
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	24,574	195.5	4,805	-0.4
	II	23,273	195.3	4,546	1.5
	III	23,631	192.5	4,548	-1.3
	IV	26,465	198.0	5,239	4.6
2002	I	24,139	198.0	4,779	-0.5
	II	24,290	197.6	4,800	5.6
	III	25,117	192.4	4,832	6.2
	IV	26,714	196.7	5,255	0.3
2003	I ^p	24,618	198.4	4,885	2.2
	II ^{ac}	23,468	198.6	4,661	-2.9
	III ^a	24,226	195.5	4,736	-2.0
	IV ^a	25,904	200.2	5,186	-1.3
2004	I ^a	23,784	200.6	4,771	-2.3

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	Lean Value	Retail Pork
		Price (\$/cwt)	(Live Price/74 yield) (\$/carcass cwt)	¢/carcass cwt
1990	I	\$49.45	\$66.82	196.2
	II	\$59.01	\$79.74	208.4
	III	\$57.67	\$77.93	222.6
	IV	\$51.67	\$69.82	223.1
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 ^p	\$31.34	\$42.35	260.2
2003	I ^a	\$35.26	\$47.65	261.9
	II ^a	\$40.59	\$54.85	
	III ^a	\$38.45	\$51.96	
	IV ^a	\$35.86	\$48.46	
2004	I ^a	\$38.70	\$52.30	

^a Predicted prices for 2003 (I) forward are made with two equations with the results averaged.

^p Preliminary