



Livestock Price OUTLOOK

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HOG INDUSTRY NEEDS MORE DOWNSIZING IN 2004

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Summary

Rising costs of production and continued near-record pork production will keep producer margins near breakeven in 2004. Production is expected to be near 19.8 billion pounds, about the same as in 2003. Producers have indicated they will reduce farrowings in the spring quarter by 1 percent, but more reductions will be needed in the second-half of the year to bring the industry back to profitability in 2005.

The implications of BSE-USA-Canada will continue to be an important factor for hog prices during the year. Current forecasts are that retail beef prices will drop by 10 to 12 percent in 2004 and that this will have a negative impact on domestic pork demand of about 1 percent. Alternatively however, foreign countries are expected to increase pork demand from the U.S. as a result of the limitation on beef exports due to BSE-USA. This positive impact is much more difficult to estimate, but is thought to be about equal and thus offset the negative impacts on domestic demand. The rate at which Canadian beef is allowed back into world markets will also be an influence on the number of hogs coming from Canada to the U.S.

Prices for 51 to 52 percent lean carcasses on a live weight basis are expected to average near \$41 for the year. Prices are expected to move higher from the start of the year until May, when they could reach the mid-\$40s. Prices are anticipated to be in the low \$40's in the summer before finishing the year in the very high \$30's.

While prices may improve about \$2 per live hundredweight over 2003, costs are expected to rise by about \$1.50. Thus, the industry would show a small estimated loss of about \$.50 per live hundredweight on average in 2004 compared to a loss of about \$1 last year.

Reduction in the U.S. herd size will be necessary to bring the industry back to profitability. Reduction of herd size may also be needed to adjust to a period of higher feed ingredient costs. In addition, producers are advised to develop feed ingredient purchasing plans for the upcoming year. Grain and soybean prices could be much higher and especially very volatile.

The Numbers

The size of the breeding herd on December 1, 2003 was estimated to be 6.0 million head, a reduction of .8 percent from last year. In the largest 10 states the following had increases: Oklahoma (+9%); Minnesota (+3%); Ohio (+3%); Iowa (+1%); and Nebraska (+1%). The herds in North Carolina and Kansas were unchanged. Major states with declines included Indiana (-9%); Missouri (-6%) and Illinois (-5%). Also, formerly "up-and-coming" Colorado breeding herd numbers have fallen on hard times dropping by 50,000 head, or 31 percent, in 2003.

The breeding herd continued to move out of the Eastern Corn Belt (ECB) (Wisconsin, Illinois, Indiana, Michigan, Ohio) in 2003. ECB numbers fell by 40,000, led by a drop of 50,000 in Indiana

and Illinois combined. In the first four years of this decade, the ECB has shed 110,000 breeding herd animals or nearly 10 percent of the herd. In comparison the national numbers are down 4 percent. Other major production regions that Two regions have continued to see the number of sows increase this decade. Oklahoma, Texas, and Kansas had an increase of 85,000 sows as Seaboard Coast has continued to encourage production. The second region is Minnesota, South Dakota, and North Dakota which has seen an increase of 70,000 animals in the breeding herd.

The vast majority of the increase in the breeding herd in recent years has been in Canada and the U.S. has imported many more pigs. Canadian sow numbers have increased by 253,000 since the start of the decade in comparison to a 268,000 decline in the U.S. For the Canadian's, this has been a 20 percent increase in the breeding herd compared to a 4 percent decline in the U.S. breeding herd. While largely unknown by many producers in the U.S., the growing consumption of U.S. pork is increasingly being supplied by pigs from Canada.

BSE-USA Implication

How will BSE-USA impact hog prices in the coming year? The exact outcome is uncertain, so only "best estimates" can be made at this time. Expect a negative hog price impact on the domestic front. This will result as retail beef prices drop by 10 to 12 percent. Lower beef prices will tend to result in some reduction in pork demand. However, these "cross effects" are relatively small for today's consumer, so we anticipate only about a 1 percent reduction in pork demand from the lower retail beef prices. This assumes a cross-price elasticity of about .08 percent (a 1 percent drop in beef prices results in an .08 percent drop in the quantity of pork demanded).

The second implication of BSE-USA is the loss of beef exports, with the question of how much additional pork demand will be created as foreign countries substitute pork for lost beef imports. These estimates are much more difficult since there is not a historical precedence to draw upon.

have seen their breeding herds drop more than the national decline include the Western Corn Belt and the Central Plains, due to the decrease in Colorado.

Japan, Mexico, and South Korea were the major buyers of U.S. beef in 2002, accounting for a remarkable 2.0 billion pounds of the total 2.4 billion pounds of beef exports. How much of this demand will come back to the U.S. in the form of additional pork exports? No one knows the answer, but the Japanese have an import safeguard which triggers when the volume of pork imports reaches a 19 percent increase compared to the average of the last three years. This "safeguard" may limit the increase in Japanese pork imports to about 20 percent.

South Korea has a fairly low cost domestic pork production industry and this will likely limit their additional purchases of U.S. pork. Mexico will likely buy more U.S. pork, but they have been importing less than half as much pork as Japan. Assuming that U.S. beef imports are restricted for six months, these positive pork demand impacts might reach 1 percent of U.S. production, although there remains considerable uncertainty. In summary, the negative demand impacts from lower U.S. beef prices may be roughly offset by the positive impacts of lost beef exports.

Canadian Industry Growth

Canada hit the U.S. pork industry with a double edged sword in 2003. Not only were Canadian hog numbers already growing, but BSE-Canada stimulated additional shipments of market ready hogs.

First the longer term perspective. U.S. hog prices have been depressed since 1998. The devastatingly low prices of late 1998 and early 1999 did result in U.S. producers cutting production in subsequent years, but this was largely offset by increases in pigs coming from Canada. Between 1999 and 2003, U.S. producers reduced the number of hogs produced by 4.4 million, but the number of hogs imported from Canada increased by 3.4 million head, nearly offsetting the impact of U.S. herd downsizing.

In 2003 BSE-Canada also increased the flow of market hogs above what it would have been in the absence of BSE. After their May 20th announcement, the flow of market hogs to the U.S. increased and represented an additional supply of about 1.5 percent of U.S. slaughter. This depressed U.S. prices by about \$2 per live hundredweight.

There may be a positive U.S. hog price impact in 2004 if Canadian beef exports resume. This will result in increasing Canadian beef prices and corresponding increases in Canadian pork consumption so that fewer market hogs will be sent to the U.S. The much stronger Canadian dollar will also help trim incentives for Canadians. Estimated slaughter rates per quarter are shown in Table 4. For the entire year, slaughter is expected to be 99.8 million head, a decrease of .6 percent from 2003's estimated total of 100.4 million head. Average carcass weights are expected to increase to 198.6 pounds from 197.6 pounds in 2003, a .5 percent rise. This will be a slower increase in weights than in 2003 due to higher feed prices expected for 2004.

Prices are expected to increase by nearly \$2 per live hundredweight, to around \$41 for the year. These prices are based upon the live price for the national average of 51 to 52 percent lean carcasses. Prices are starting the year at \$36 and are expected to rise into the winter and spring. Prices are expected to average near \$40s in the first quarter and improve to a second quarter average near \$44. Average prices may be about \$2 lower in the summer before ending the year with last quarter average prices in the very high \$30's. Prices are expected to be up about 5 percent with virtually no change in production. Errors in price forecasts are sometimes large, so caution should be used as individuals interpret the implications of these computer based price estimates.

PRODUCTION

Year	Quarter	Production Million#s	Percent 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
		19,138	1.2
2002	I	4,779	-0.5
	II	4,800	5.6

to send market hogs to the U.S. in 2004. In 2003, the Canadian dollar increased in value by 18 percent compared to the U.S. dollar.

Pork Supplies and Prices

Estimates of pork supplies are made in Tables 2, 3, and 4, and are also shown in the table to follow.

For the year, expect supplies to be somewhat above 19.8 billion pounds, which will be very close to the record production of 2003. This means that pork production will stay quite large, but population growth implies that per capita supplies will drop about 1 percent.

	III	4,832	6.2
	IV	5,290	1.0
		19,701	2.9
2003	I	4,889	2.3
	II	4,734	-1.4
	III	4,795	-0.8
	IV	5,425	-2.6
		19,843	0.7
2004	I	4,886	-0.1
	II	4,768	0.7
	III	4,878	1.7
	IV	5,294	-2.4
		19,826	-0.1

PRICES

Year	Quarter	Live Weight Price \$/cwt.	Percent 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
2002		45.81	2.5
	I	39.43	-7.9
	II	34.99	-32.8
	III	33.86	-33.7
2003	IV	31.39	-15.8
		34.92	-23.8
	I	35.38	-10.3
	II	42.64	21.9
2004	III	42.90	26.7
	IV	36.88	17.5
		39.45	13.0
	I	40.58	14.7
2005	II	44.00	3.2
	III	42.25	-1.5
	IV	38.67	4.9
		41.38	4.9

The pork industry is expected to be influenced by BSE-USA but not dominated by it in 2004. While lower retail beef prices will result in a weakening demand for pork, this impact may largely be offset by the increase in foreign demand stimulated from the restrictions in beef exports. There of course remains much uncertainty of how BSE-USA will evolve over the course of 2004. The strength of the Canadian dollar relative to the U.S. and increasing Canadian beef prices should help to reduce the flow of hogs from Canada in 2004. This will also be price positive for U.S. hogs.

Unfortunately, costs of production are expected to rise in 2004 as well. Current futures are suggesting that feed costs will increase about \$1.50 per live hundredweight which may nearly offset the \$2 rise in expected hog prices. Current estimates are for the industry to operate at a loss of about \$.50 per live hundredweight in 2004 compared with a loss of around \$1.00 in 2003. Continued financial pressure on high cost producers should result in some further reduction in the breeding herd during the year. If this occurs, further price improvement would be expected for 2005. Unfortunately, one year ago we felt there was going to be more herd reduction in 2003 that simply did not occur.

Implications for the Pork Industry

World stocks of corn and wheat are tight by historical comparisons and U.S. soybean use still needs to be rationed sharply in coming months. Given the tight world stocks situation, expectations for strong world economic growth, and especially much stronger world currencies, periods of high grain and soybean prices can be anticipated in future years. This may be compounded by a period of volatile world weather that has been evident in 2002 and 2003.

Grains and soybeans have moved from a period of large world stocks and low prices in the 1998 to 2002 time period to an era of higher and more volatile prices. This has direct implications for the pork industry as supplies may still have to be adjusted lower. The reduction of supply is the manner in which the industry can increase hog prices to ultimately compensate for higher production costs.

What feed purchasing strategies might work best in a period of higher and more volatile prices? First, feed purchasing price risk management becomes more important. When surpluses are

large, grain and soybean meal prices tend to stay at low levels for long periods of time and there is a small variation from low to high during the year. Thus, the decision of when to price is less important, and extended periods of low prices increase the odds of pricing at relatively low levels. Alternatively, when supplies are short relative to demand, prices are much more upwardly mobile and the range of prices during a year are much wider. The decision of when to price has a much larger potential impact and should receive increased attention.

Second, in a period of generally stronger prices, one would want to be pricing earlier and also be more aggressive in terms of the volume of feed ingredients priced. Finally, in volatile and upward trending markets it is easy to let emotions guide the ingredient pricing decisions. Emotion often leads to taking excessive positions at times when prices are at extreme highs. Patience is generally a virtue in buying ingredients in volatile markets as one wants to avoid buying large amounts near the spiking price highs. A diversified purchasing plan with multiple purchase decisions over time can greatly reduce the stress associated with bull markets and help provide the patience to wait through periods of rapid price increase.

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

	2002	2003	2003 as % of 2002
	thousand head		percent
Inventory			
All hogs and pigs	59,513	60,040	100.9
Kept for breeding	6,012	5,966	99.2
Kept for market	53,501	54,074	101.1
Market hogs by weight			
Under 60 pounds	19,461	19,821	101.8
60-119	13,054	13,250	101.5
120-179	10,881	10,839	99.6
180 and over	10,105	10,164	100.6
Sows farrowing			
June 03 - Aug 03	2,887	2,825	97.9
Sept 03 - Nov 03	2,817	2,836	100.7
Dec 03 - Feb 04 ¹	2,765	2,806	101.5
Mar 04 - May 04 ¹	2,881	2,846	98.8
Pigs saved per litter			
June 03 - Aug 03	8.90	8.90	100.0
Sept 03 - Nov 03	8.83	8.93	101.1
Pig crop			
June 03 - Aug 03	25,700	25,150	97.9
Sept 03 - Nov 03	24,892	25,314	101.7

¹ Intentions

Table 2. U.S. Market Hogs Weighing 60 to 179 Pounds on Dec 1 (previous year)^c, and Commercial Slaughter in Calendar Quarter from January through March

	<i>1,000 Hd Inventory</i>	<i>1,000 Hd Slaughter</i>	<i>Ratio</i>
1990	21,856	21,883	100.1
1991	21,847	21,508	98.4
1992	23,351	23,802	101.9
1993	23,266	23,057	99.1
1994	22,871	22,746	99.5
1995	24,028	24,229	100.8
1996	23,510	23,650	100.6
1997	22,402	22,342	99.7
1998	24,507	24,776	101.1
1999	25,216	25,571	101.4
2000	24,180	25,019	103.5
2001	23,779	24,574	103.3
2002	23,668	24,139	102.0
2003	23,935	24,620	102.9
2004 ^a	24,089	24,747	102.7 ^b

^a Projected

^b Mean of previous three years

^c December of previous year

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
<u>June-August</u>				<u>January-March</u>		
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	24,620	95.8
2003 ^a	2,825	25,150	8.90	2004	24,019	95.5 ^b
<u>September-November</u>				<u>April-June</u>		
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	2,817	24,892	8.83	2003	23,890	96.0
2003 ^a	2,836	25,314	8.93	2004	23,959	94.6 ^b
<u>December-February</u>				<u>July-September</u>		
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	2,765	24,359	8.81	2003	24,698	101.4
03/0	2,806	24,805	8.84	2004	24,913	100.4 ^b
<u>March-May</u>				<u>October-December</u>		
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	2,881	25,583	8.88	2003	27,223	106.4
2004 ^a	2,846	25,329	8.90	2004	26,433	104.4 ^b

a Estimates

b Mean of previous three years

Table 4. U.S. Commercial Slaughter, Carcass Weights, and
Quarterly Pork Production 1991-2004

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	24,574	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	4,780	-0.5
	II	24,290	197.5	4,797	5.5
	III	25,117	192.4	4,832	6.2
	IV	26,714	196.7	5,255	0.3
2003	I	24,620	198.6	4,889	2.3
	II	23,890	198.2	4,734	-1.3
	III	24,698	194.1	4,795	-0.8
	IV ^p	27,223	198.9	5,425	3.2
2004	I ^{ac}	24,504	199.4	4,886	-0.1
	II ^a	23,959	199.0	4,768	0.7
	III ^a	24,913	195.8	4,878	1.7
	IV ^a	26,433	200.3	5,294	-2.4

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 ^p	\$36.88	\$49.84	271.5
2004	I ^a	\$40.58	\$54.84	
	II ^a	\$44.00	\$59.46	
	III ^a	\$42.25	\$57.09	
	IV ^a	\$38.67	\$52.26	

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

^p Preliminary