

Happy Days for Hog Producers Continue

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The year ahead appears to be one of continued profitable returns for hog producers with average prices near \$47 on a liveweight basis and estimated average costs of production in the very high \$30 to low \$40s for farrow-to-finish operations.

The U.S. breeding herd is nearly stable, with anticipation for a modest one percent increase in farrowings this winter. Pork supplies for 2006 are anticipated to be up about two percent overall, but with only a one percent increase in the first-half of the year, but a three percent increase in the last-half.

The biggest threat to hog returns in 2006 appears to be a more rapid build-up in the breeding herd than is now reported, and secondly a resumption in U.S. beef exports that will moderate the growth in U.S. pork exports. Avian influenza (AI) will likely continue to be a world-wide concern in 2006. This will serve to reduce international shipments of broiler meat, and to reduce broiler consumption. Both of these will encourage more pork trade, but the magnitude of the impact will depend on the spread of (AI), the media attention given to it, and of course if the virus is able to mutate to be spread from person to person. These two factors suggest that pork exports may be about the same as this year, following growth rates exceeding two percent per year in both 2004 and 2005.

The U.S. breeding herd could (and likely will) sustain a growth of as much as three to four percent by a year from now. With a fairly stable breeding herd in Canada, this will increase supplies such that hog prices would drop to near breakeven levels by late 2006 and into 2007.

However, in the longer-run, the growth of output per sow is expected to grow at 2.0 to 2.5 percent per year, while consumption may only increase at 1.9 to 2.0 percent per year. If so, this would mean that the U.S. breeding herd would have to return to a modest reduction in size over the rest of the decade. That rate of decrease might be something like .5 percent per year.

Corn is cheap, and hog producers would want to own as much cash inventory as possible this fall, even storing outside in covered piles if necessary. Soybean meal prices are expected to have little upside potential this fall and winter with growing use of soybean oil for fuel generating more soybean meal; with more distillers dried grains (DDGs) from ethanol production being substituted for meal, especially in cattle rations; with a potential for much larger South American production (compared to the last two years); and with a surge in U.S. bean acres in 2006. Late October lean hog futures appear to provide forward pricing opportunities near price levels predicted in this report.

The Numbers

The inventory of all hogs and pigs remained unchanged in September. The breeding herd was up only .2 percent and the market herd was unchanged as well. Hogs that will be market ready in October and November were up about one percent, while those to come to market in December through February were down .5 percent.

Sow farrowings were unchanged in the summer and are expected to be unchanged this fall. Farrowing intentions for the winter quarter are up 1.4 percent, finally reflecting a modest expansion.

Overall the breeding herd remains extremely stable. States where the breeding herd is above year-previous levels include Illinois, Iowa, and Minnesota each up two percent and Missouri was up three percent. Notable declines in the breeding herd included North Carolina, down one percent and Nebraska which was down three percent.

Pork Supply and Prices in 2006

Pork production this fall is expected to be about one percent higher than in the final quarter of 2004 as a result of somewhat more hogs in the 60 to 179 pound weight range reported in the September survey (Tables 1, 2, and 3). Weights are expected to be about .5 percent higher. The supply of pigs in the first half of 2006 will come from the under 60 pound weight group and from fall farrowings, each of which are expected to be about unchanged. Thus the .7 percent increase in anticipated pork supplies in the first-half will be as a result of more pigs per litter and higher weights.

In the last-half of 2006, pork supplies will be up about three percent. These supplies will be drawn from this coming winter's farrowings where producers have indicated intentions to increase over one percent and the spring farrowings. I anticipate spring farrowings to be up nearly two percent.

Prices in 2005 will average close to \$50 on a liveweight basis. This is down from \$52.51 for the 2004 average. These prices are liveweight equivalents from 51 to 52 percent lean carcasses.

Prices this fall are expected to average in the mid-\$40, and then move higher for an average in the mid-to-higher \$40s in the winter. The highest prices next year will likely be in the spring and early summer. The spring quarter average prices are expected to be in the very high \$40s with some daily highs at or somewhat above \$50. Summer prices may be in this range as well. By the fall of 2006, some added buildup in pork supplies is expected to be underway with prices dropping back into the low-to-mid-\$40s.

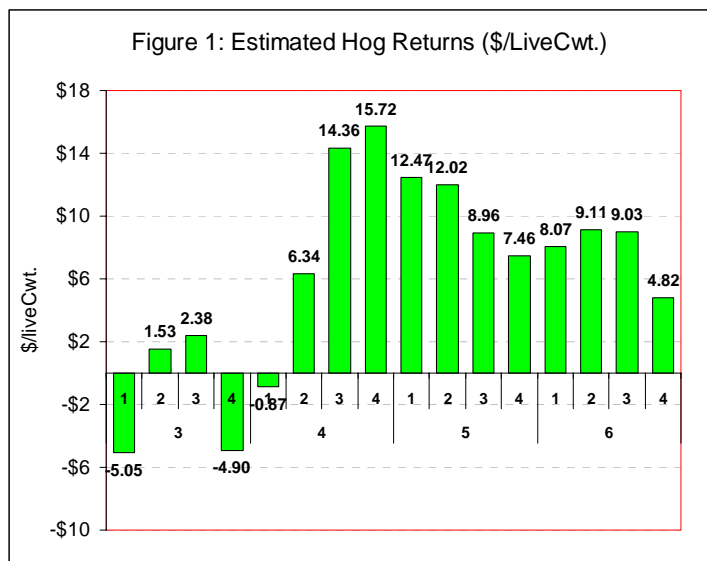
Thus for 2006, prices may average about \$47 compared to near \$50 in 2005.

PRODUCTION			Percent
Year	Quarter	Production Million#s	Change vs. Year-ago
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	5,130	4.7%
	II	4,897	3.3%
	III	5,046	5.0%
	IV	5,435	-1.2%
	Year	20,508	2.8%
2005	I	5,136	0.1%
	II	5,022	2.6%
	III	4,995	-1.0%
	IV	5,514	1.4%
	Year	20,667	0.8%
2006	I	5,172	0.7%
	II	5,057	0.7%
	III	5,131	2.7%
	IV	5,700	3.4%
	Year	21,060	1.9%

PRICES		Liveweight	Percent
Year	Quarter	Price \$/cwt.	Change vs. Year-ago
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	\$44.18	24.9%
	II	\$54.91	28.8%
	III	\$56.58	31.9%
	IV	\$54.35	47.3%
	Year	\$52.51	33.1%
2005	I	\$52.24	18.2%
	II	\$52.09	-5.1%
	III	\$50.32	-11.1%
	IV	\$45.80	-15.7%
	Year	\$50.11	-4.6%
2006	I	\$46.90	-10.2%
	II	\$48.43	-7.0%
	III	\$49.02	-2.6%
	IV	\$44.00	-3.9%
	Year	\$47.09	-6.0%

Positive Returns Continue

The year of 2006 should be another profitable one for pork producers as shown in Figure 1. Returns above costs for farrow-to-finish operations are estimated to be \$7 to \$9 per live hundredweight this fall through next summer. Returns in the fall of 2006, are expected to be more like \$5 per hundredweight given the expected expansion of the production, and somewhat higher feed prices.



It is unusual for profits to extend this long without a more substantial expansion phase. The industry turned to profitability in the second quarter of 2004. If current projections of favorable returns through 2006 hold, this will be 11 consecutive quarters of profitability. The last time the industry was able to sustain profits for this long was 1985 to 1988.

One question is why have hog producers been slow to expand? Several factors may be at play. First, since the major financial losses in 1998 and 1999, the breeding herd in the U.S. has been in decline as sow numbers dropped from

about seven million to only six million now. All of the sow expansion since that period has occurred in Canada where numbers increased by one-half million sows. Of course many of the pigs from those sows found their way to the U.S. as SEW pigs. From 1998 to 2003 the value of the U.S. dollar was strengthening relative to the Canadian dollar, making it more advantageous to sell pigs and hogs in the U.S. However in the past two years the Canadian dollar has strengthened relative to the U.S. dollar, greatly reducing the incentive to increase sows in Canada and ship pigs to the U.S.

When asked why they are not expanding, producers have several thoughts. They relate the devastating financial experiences of 1998 and 1999 as a factor that they still consider. In addition, many see much higher building costs as a constraint, as well as rising interest rates, and the uncertainty over the ability of pork exports to remain at lofty levels. Of course environmental concerns and the related site selection issues often are mentioned as well.

Should U.S. Producers Expand?

As discussed in the previous section, all of the expansion in farrowing in the past five years has occurred in Canada. Most of the Canadian industry is now at a stand still with regard to expansion. This is a good time to ask the question if U.S. producers should be looking to expand in our country.

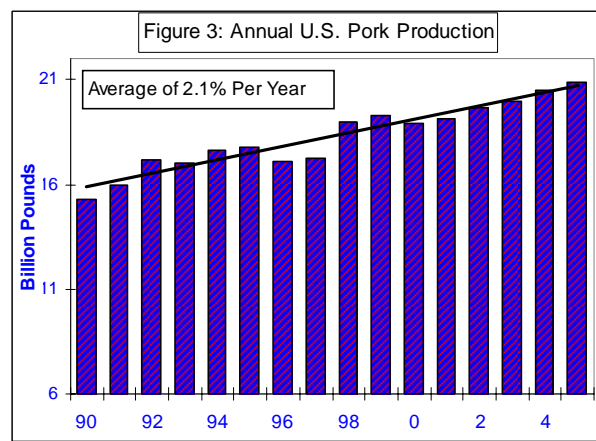
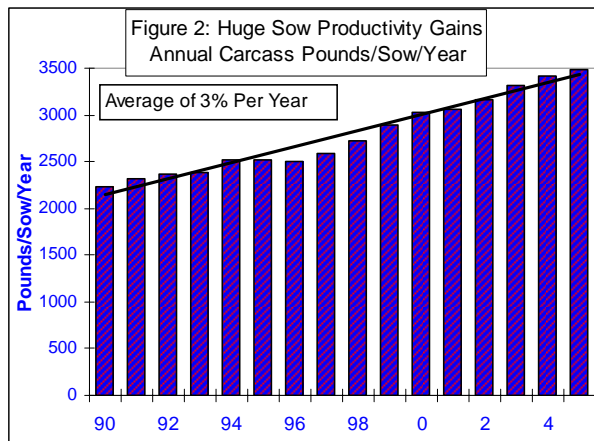
In general, I think the answer is yes! However, the growth in the number of sows needs to be kept at a moderate level because sow productivity is rising so rapidly. Aggregate demand for pork is rising due to population growth in the U.S., due to improved consumer attitudes around meat consumption, and due to growing export interest.

Let's first look at the changing productivity of the U.S. breeding herd since 1990 as shown in Figure 2. In the U.S., the carcass pounds sold per breeding herd animal has increased from 2,230 pounds in 1990 to 3,490 pounds in 2005. This is a compound annual rate of three percent per year. That means we could produce the same amount of pork with three percent fewer sows on average each year. If demand were only growing at say, one percent per year, then we could meet annual pork needs with two percent less sows each year.

The source of the U.S. sow productivity gains over this period have come from four identifiable sources. First the farrowings per year have increased from 1.67 to 1.93. This accounts for about one percent of the three percent overall impact. Secondly, pigs weaned per litter have increased from 7.88 to 9.03, another one percent. Third, carcass weights have increased from 179.7 pounds to 199.2 pounds, an average increase of .7 percent per year. Fourth, all other factors have contributed about .3 percent per year. The largest of these is growth in importation of live pigs from Canada for finishing in the U.S.

How much growth has there been in production/consumption over the 1990 to 2005 period. As shown in Figure 3, that rate of growth has averaged only 2.1 percent per year (compound rate). The source of this growth is as follows: U.S. population growth +1.2

percent per year; export growth .7 percent per year; all other factors including improved domestic preferences for pork .2 percent per year.



Thus, sow productivity has grown at a faster rate than demand/consumption increases. With Canada increasing sows as well in the past five years, this means the number of sows needed in the U.S. has dropped.

Do U.S. sow numbers need to drop or increase in the future? As indicated earlier, the growth of Canadian sows has slowed or even stopped for now. The components of U.S. sow productivity growth are expected to slow somewhat as well. The rate of growth in the number of farrowings per year will probably slow as most of the U.S. herd has now been put into an accelerated reproductive cycle. In addition, weaning ages, at least for some firms, is headed back up. Pigs weaned per litter appears to be remaining near trend rates of increase. Pigs per litter is an important economic variable, so the rate is likely to continue to trend higher. Weights are also near trend, and the rate of increase is expected to continue. Thus, longer-term, productivity growth may be in the 2.0 to 2.5 percent per year range.

What about the rate of consumption expansion. Domestic consumption is growing near the rate of population increase, that's now closer to one percent per year. Let's assume domestic preferences continue to provide a .2 percent annual increase. So, domestic increase in consumption may be about 1.2 percent per year. What about exports? They have expanded by over two percent per year in 2004 and 2005. But we know that is excessive. So a return to the average growth rate since 1990 of .7 percent seems reasonable as an assumption. If so, this would mean a consumption growth rate of 1.9 percent per year.

In conclusion, a sow productivity growth rate of 2.0 to 2.5 percent per year may exceed the pork consumption growth rate of 1.9 to 2.0 percent per year. This implies that U.S. sow numbers would need to decrease up to .5 percent per year over the next say five years, or about 2.5 to 3.0 percent in total. However, Since the industry is in a profitable period, an expansion of three to four percent in the next year would bring prices downward close to the breakeven mark (remember breakeven as used here means

covering full costs of production including all labor and a return to equity capital). Thus, while it appears the industry will undergo a modest expansion in the short run, the long-run seems to suggest little need to be expanding the U.S. breeding herd as long as sow productivity can outpace consumption growth.

Implications for the Coming Year

The coming year should be one of continued profits, but not as large as in the past 18 months. While hog prices since the spring of 2004 has been surprisingly robust, everyone should realize this was in large part due to the extraordinary growth in export demand. Pork export demand has been positively influenced by restrictions of U.S. beef exports, and potential for opening beef exports in 2006 would likely dramatically slow the growth of pork exports.

The U.S. industry could likely consider a modest breeding herd expansion of three or four percent in the coming year, assuming the Canadians keeping their herd fairly constant. This level of expansion would tend to bring profitable prices down to levels which are closer to breakeven. In the longer run however, it appears likely that sow productivity growth will outpace consumption growth, and thus a modest decline in U.S. sow numbers will continue through the end of the decade.

On the feed management front, corn is cheap this fall with relatively weak futures prices and very weak basis levels. Cash corn prices are expected to be at their lows in very late October and early November. Ownership of as much corn inventory as possible should be considered. This may include use of temporary storage space, or even storage outside in covered piles. Of course most will use the corn stored outside as soon as possible.

Purchase of meal for delivery through March also seems prudent although meal still has several potential bearish market forces to deal with. First, high energy prices are causing the crushing industry to look toward soybean oil for blending as bio-fuels. A greater emphasis on crushing for oil content implies a greater excess of meal production and a negative tone to meal prices. Secondly, growing supplies of DDGs from ethanol production will continue to reduce soybean meal use in 2006, particularly in cattle rations. Third, if the South American crop is expected to be at least average size, this will be generally negative to meal prices in the winter and early spring. Fourth, expect to see more soybean acreage in 2006.

Lean hog futures in late October are priced near price levels anticipated in this report. This means they are at levels that are acceptable from my perspective but not outstanding. In addition, historical seasonality shows that lean hog futures have tended to be at their lowest levels from September through early November. Seasonally, futures have tended to improve from early November into December. Of course, there is no assurance that lean hog prices will follow the historical pattern in any given year, including this one.

Even though the odds favor some improvement in futures prices over the next several months, those who must have price protection will find that lean hog futures will provide profitable returns through next summer.

Table 1. Hogs and Pigs in the United States, September 1, 2005

	2004	2005	2005 as % of 2004
	- - - -thousand head- - - -		percent
<i>Inventory</i>			
All hogs and pigs	61,519	61,536	100.0
Kept for breeding	5,962	5,972	100.2
Kept for market	55,556	55,563	100.0
<i>Market hogs by weight</i>			
Under 60 pounds	20,729	20,634	99.5
60-119	13,613	13,716	100.8
120-179	11,235	11,384	101.3
180 and over	9,981	9,830	98.5
<i>Sows farrowing</i>			
June 05 -Aug 05	2,905	2,898	99.8
Sept 05-Nov 05 ¹	2,888	2,888	100.0
Dec 04 - Feb 06 ¹	2,835	2,875	101.4
<i>Pigs saved per litter</i>			
March 05 - May 05	8.93	9.02	101.0
June 05 -Aug 05	9.01	9.07	100.7
<i>Pig crop</i>			
March 05 - May 05	25,633	25,884	101.0
June 05 -Aug 05	26,162	26,273	100.4

¹ Intentions

Table 2. U.S. Market Hogs Weighing 60 to 179 Pounds on September 1, and Commercial Slaughter in Calendar Quarter from October to December

	Head Inventory	Slaughter	percent
	thousand head		
1990	22,350	22,628	101.2
1991	23,680	24,367	102.9
1992	24,509	25,138	102.6
1993	22,720	24,573	108.2
1994	25,130	26,322	104.7
1995	24,517	25,198	102.8
1996	23,370	23,833	102.0
1997	24,061	25,152	104.5
1998	25,587	27,584	107.8
1999	24,543	26,723	108.9
2000	23,872	25,714	107.7
2001	24,292	26,470	109.0
2002	24,745	26,715	108.0
2003	25,063	27,608	110.2
2004	24,848	27,192	109.4
2005	25,100	27,405	109.2 ^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 1993 to 2006

Year	Sows Farrow	Pig Crop	Pigs/ Litter	Commercial		Ratio ^b
				Year	Slaughter	Slau/PigCrop
March-May				October-December		
1993	3,220	26,135	8.12	1993	24,574	94.0
1994	3,390	27,984	8.26	1994	26,315	94.1
1995	3,170	26,373	8.32	1995	25,197	95.5
1996	2,930	24,833	8.48	1996	23,832	96.0
1997	2,911	25,229	8.67	1997	25,143	99.7
1998	3,086	26,989	8.75	1998	27,586	102.2
1999	2,986	26,272	8.80	1999	26,723	101.7
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	2,886	25,629	8.88	2003	27,608	107.7
2004	2,870	25,633	8.93	2004	27,192	106.1
2005	2,870	25,884	9.02	2005 ^a	27,623	106.7
June-August				January-March		
1993	2,972	24,041	8.09	1994	22,742	94.6
1994	3,107	25,547	8.22	1995	24,224	94.8
1995	2,976	24,813	8.34	1996	23,651	95.3
1996	2,718	23,244	8.55	1997	22,308	96.1
1997	2,946	25,696	8.72	1998	24,775	96.4
1998	3,054	26,634	8.72	1999	25,579	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	2,918	25,974	8.90	2004	25,717	99.0
2004	2,905	26,162	9.01	2005	25,529	97.6
2005 ^a	2,898	26,273	9.07	2006 ^a	25,721	97.9
September-November				April-June		
1993	2,982	24,003	8.05	1994	22,965	95.7
1994	2,997	24,517	8.18	1995	23,644	96.5
1995	2,815	23,479	8.34	1996	22,201	94.6
1996	2,731	23,327	8.54	1997	21,831	93.6
1997	2,939	25,494	8.67	1998	23,628	92.7
1998	2,993	25,902	8.66	1999	24,288	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	2,856	25,488	8.93	2004	24,737	97.1
2004	2,888	25,881	8.96	2005	25,215	97.4
2005 ^a	2,888	26,108	9.04	2006 ^a	25,255	96.7
December-February				July-September		
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	24,400	8.81	2003	24,747	101.4
03/04	2,836	25,105	8.85	2004	25,817	102.8
04/05	2,835	25,489	8.94	2005	25,515	100.1
05/06	2,875	25,818	8.98	2006 ^a	26,159	101.3

^a Estimates

^b Last entry is the mean of previous three years including Canadian live imports (not shown).

Table 4. U.S. Commercial Slaughter, Carcass Weights, and Quarterly Pork Production 1994-2006

Year	Quarter	Commercial Slaughter (1,000 head)	Carcass Weight Per Hog	Pork Production (million #'s)	Percent Change Year-Ago
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	199.2	5,499	4.6
2004	I	25,717	199.5	5,130	4.7
	II	24,737	198.0	4,897	3.3
	III	25,817	195.5	5,046	5.0
	IV	27,192	199.9	5,435	-1.2
2005	I	25,529	201.2	5,136	0.1
	II	25,028	200.7	5,022	2.6
	III ^P	25,515	195.8	4,995	-1.0
	IV ^{ac}	27,514	200.4	5,514	1.4
2006	I ^a	25,721	201.1	5,172	0.7
	II ^a	25,255	200.2	5,057	0.7
	III ^a	26,159	196.2	5,131	2.7

^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/74.5 yield) (\$/carcass cwt)	Retail Pork ¢/carcass cwt
1994	I	\$45.19	\$60.66	200.8
	II	\$42.44	\$56.97	198.8
	III	\$40.07	\$53.79	199.0
	IV	\$30.56	\$41.02	193.6
1995	I	\$38.19	\$51.26	191.6
	II	\$38.57	\$51.77	190.2
	III	\$48.32	\$64.86	195.6
	IV	\$42.86	\$57.53	201.8
1996	I	\$45.33	\$60.85	206.3
	II	\$54.84	\$73.61	214.9
	III	\$57.96	\$77.80	230.4
	IV	\$55.10	\$73.96	231.9
1997	I	\$51.06	\$68.54	231.0
	II	\$56.41	\$75.72	229.7
	III	\$54.45	\$73.09	234.5
	IV	\$43.69	\$58.64	231.0
1998	I	\$34.74	\$46.63	233.0
	II	\$39.42	\$52.91	226.9
	III	\$33.95	\$45.57	231.0
	IV	\$19.30	\$25.91	226.9
1999	I	\$28.83	\$38.70	235.8
	II	\$35.18	\$47.22	238.4
	III	\$35.70	\$47.92	246.4
	IV	\$36.29	\$48.71	245.2
2000	I	\$41.14	\$55.22	249.8
	II	\$50.43	\$67.69	257.3
	III	\$46.43	\$62.32	264.3
	IV	\$40.78	\$54.74	261.3
2001	I	\$42.83	\$57.49	262.5
	II	\$52.05	\$69.87	267.0
	III	\$51.05	\$68.52	275.0
	IV	\$37.30	\$50.07	273.0
2002	I	\$39.43	\$52.93	270.9
	II	\$34.99	\$46.97	267.7
	III	\$33.86	\$45.45	264.1
	IV	\$31.34	\$42.07	260.2
2003	I	\$35.38	\$47.49	260.9
	II	\$42.64	\$57.23	262.2
	III	\$42.90	\$57.58	269.8
	IV	\$36.89	\$49.52	270.2
2004	I	\$44.18	\$59.30	269.3
	II	\$54.91	\$73.70	276.8
	III	\$56.58	\$75.95	287.7
	IV	\$54.35	\$72.95	282.8
2005	I	\$52.24	\$70.12	282.9
	II	\$52.09	\$69.92	286.7
	III ^P	\$50.32	\$67.54	283.1
	IV ^{ac}	\$45.80	\$61.48	
2006	I ^a	\$46.90	\$62.95	
	II ^a	\$48.43	\$65.01	
	III ^a	\$49.02	\$65.80	

^a Predicted prices for 2005 (IV) forward are made with two equations with the results averaged.

^P Preliminary