

**McBryde, Gary L**

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**From:** (b)(7)c  
**Sent:** Tuesday, June 30, 2009 2:51 PM  
**To:** McBryde, Gary L; (b)(7)c  
**Cc:** Johnson, Jay A; Christian, Alan R; (b)(7)c  
**Subject:** Percent of Packer to Packer Sales in the Negotiated Market  
**Attachments:** packerpercentages2.xlsx

Gary

Below is the average percent of packer to packer hog sales being reported in the AMS negotiated market over the past several years in Western Cornbelt (WCB). Prior to 2006, AMS reported (b)(4) (b)(4) hogs being sold to (b)(4) as being sold on the negotiated market, as producer owned. After 2006 complaint, AMS begun reporting such transactions as packer –owned hogs. The other factor that caused a rapid increase of one packer selling to another packer in 2006 of over 10% was (b)(4) the Western Cornbelt. (b)(4) (b)(4) (b)(4) sold several loads a day to (b)(4) in the open market which increased the number of packer-owned negotiated transactions. The highest percent of packer to packer sales reported on the Western Corbelt occurred March 1, 2007, with 56% of the negotiated market consisted of one packer selling to another packer. Remember that packer negotiated hogs are part of the 8% hogs being reported in the negotiated market.

Packer to Packer  
Sales on the  
negotiated Market

WCB Annual  
Averages

|      |        |
|------|--------|
| 2001 | 0.03%  |
| 2002 | 0.44%  |
| 2003 | 0.11%  |
| 2004 | 0.03%  |
| 2005 | 0.00%  |
| 2006 | 10.30% |
| 2007 | 15.36% |
| 2008 | 10.09% |
| 2009 | 4.15%  |

Attached is the spreadsheet to support our analysis.

If you have questions, please advise

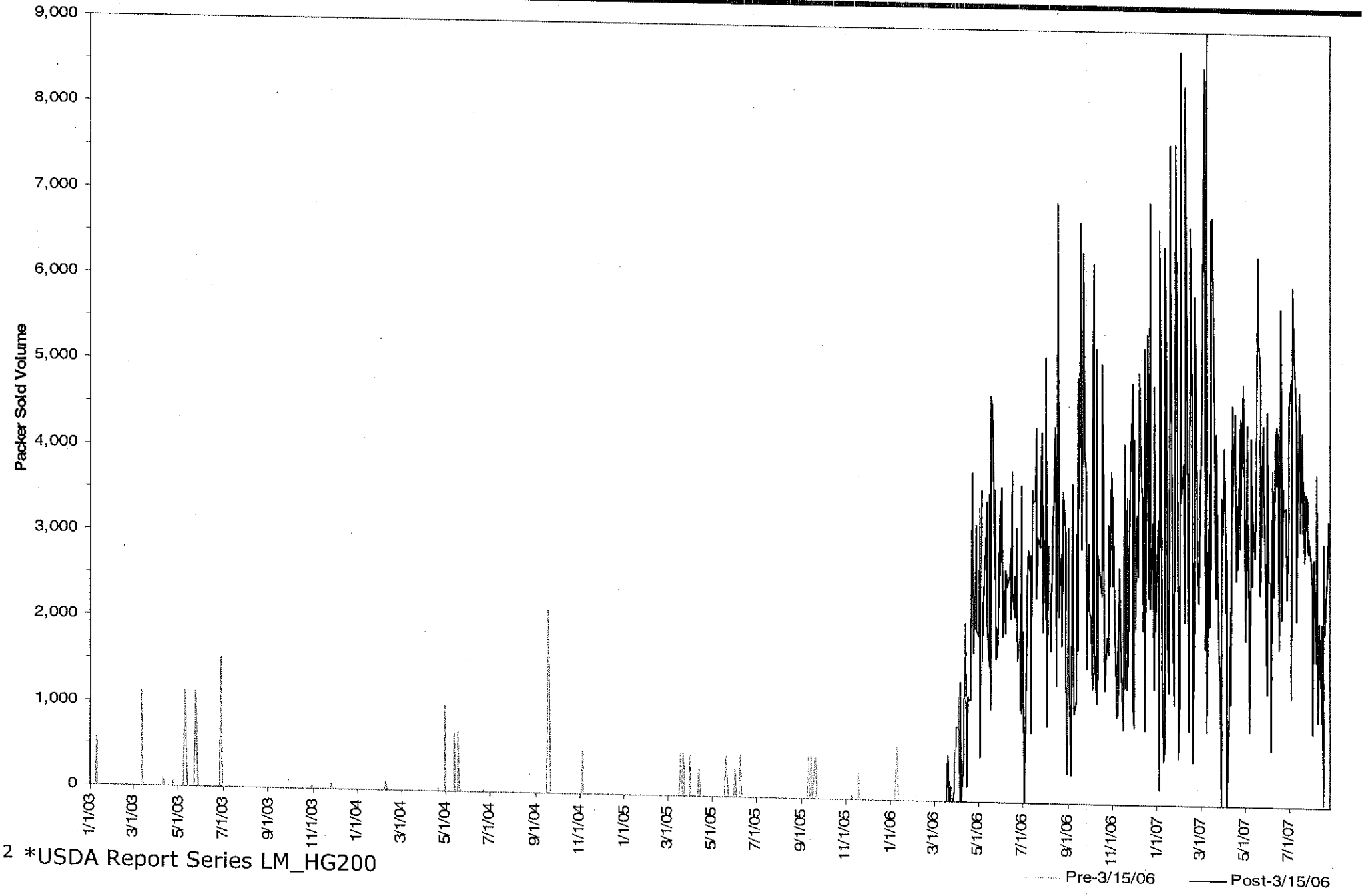
(b)(7)c

Gay -

# Hog Market Analysis

8/30/2007

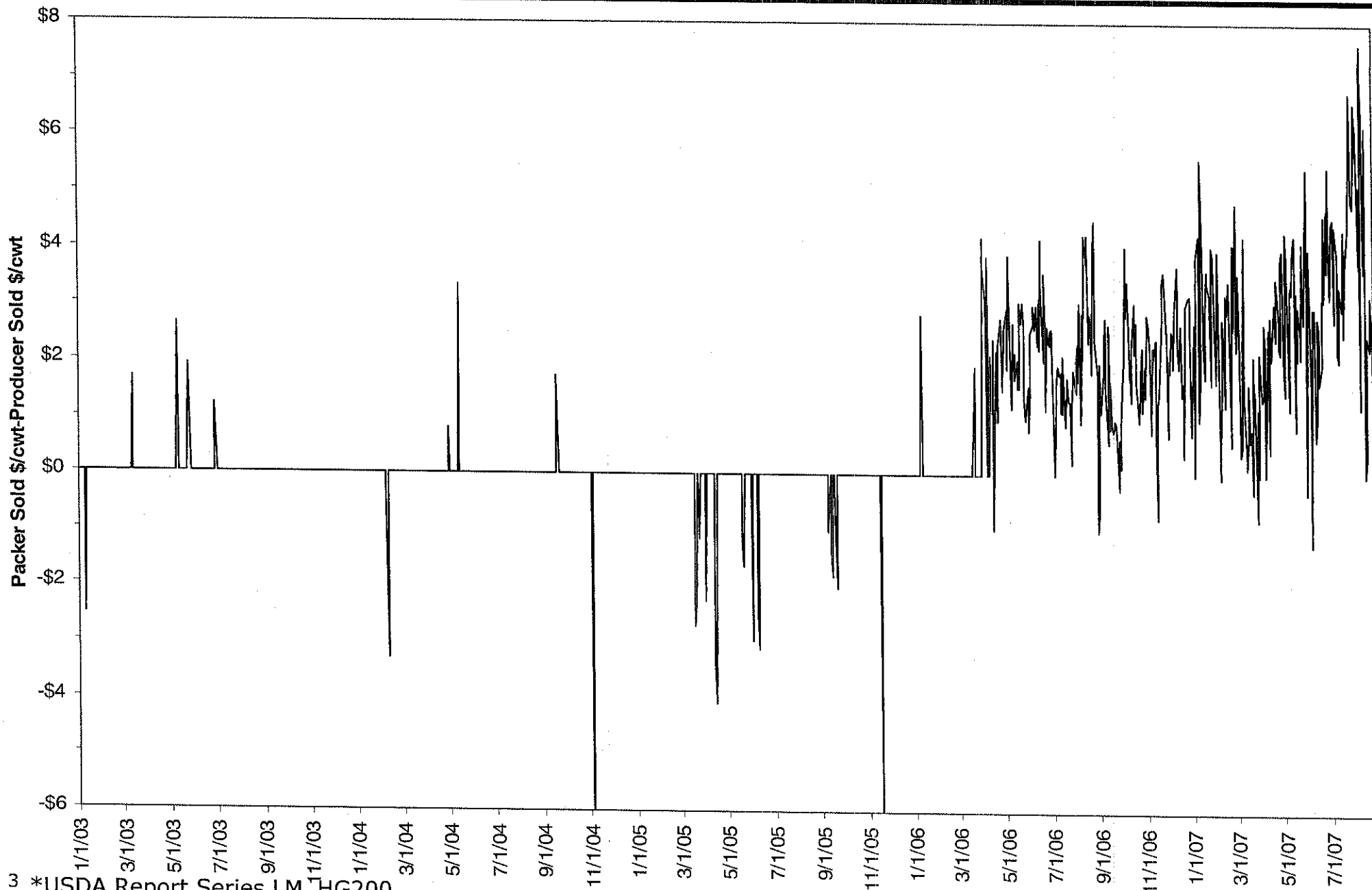
# Packer Sold Hogs volume increased dramatically after USDA Packer Sold classification change on 3/15/2006



2 \*USDA Report Series LM\_HG200

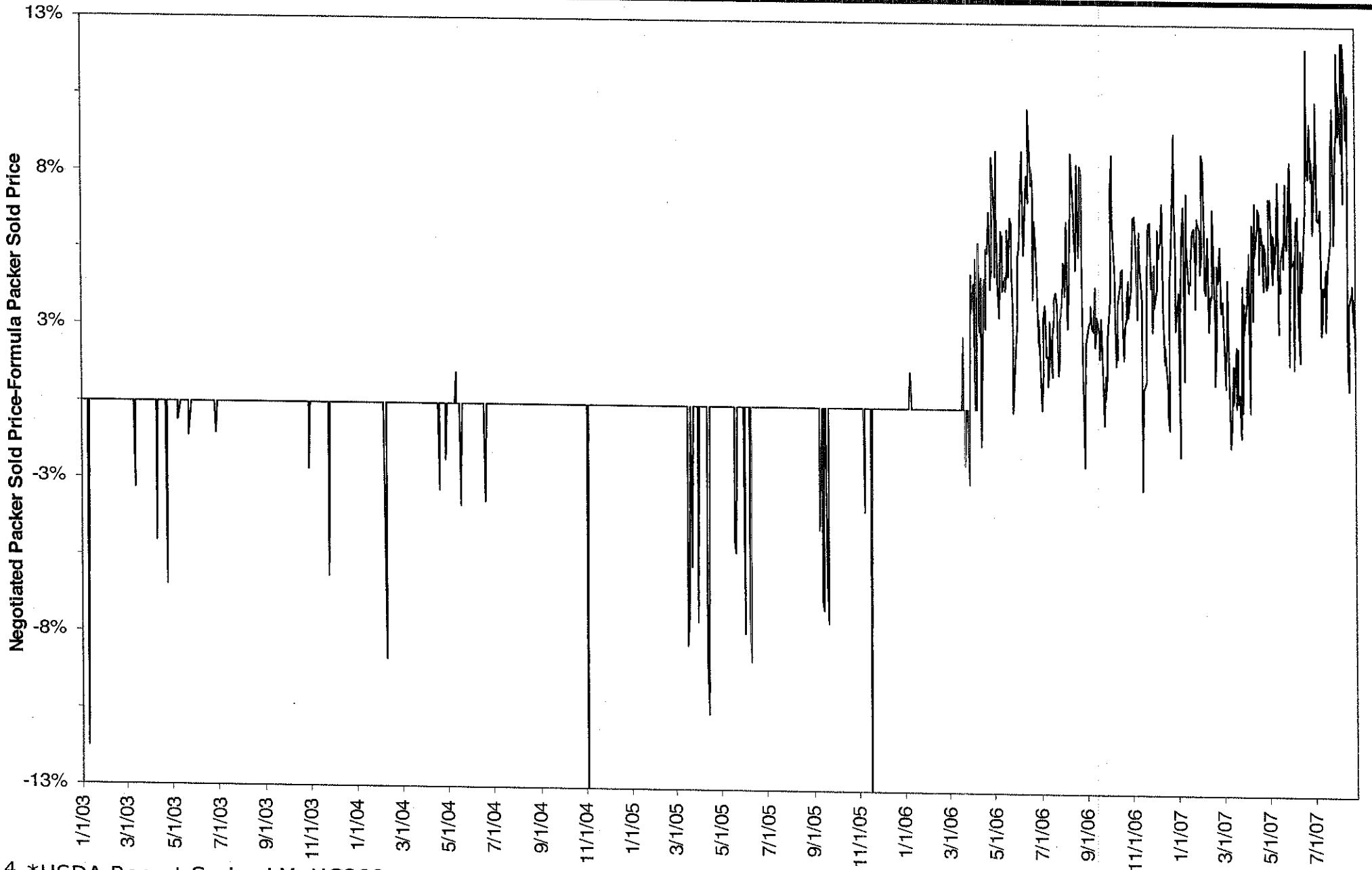
Pre-3/15/06 Post-3/15/06

# Packer Sold hogs were immediately more valuable as demonstrated by the producer achieved price vs the packer achieved price



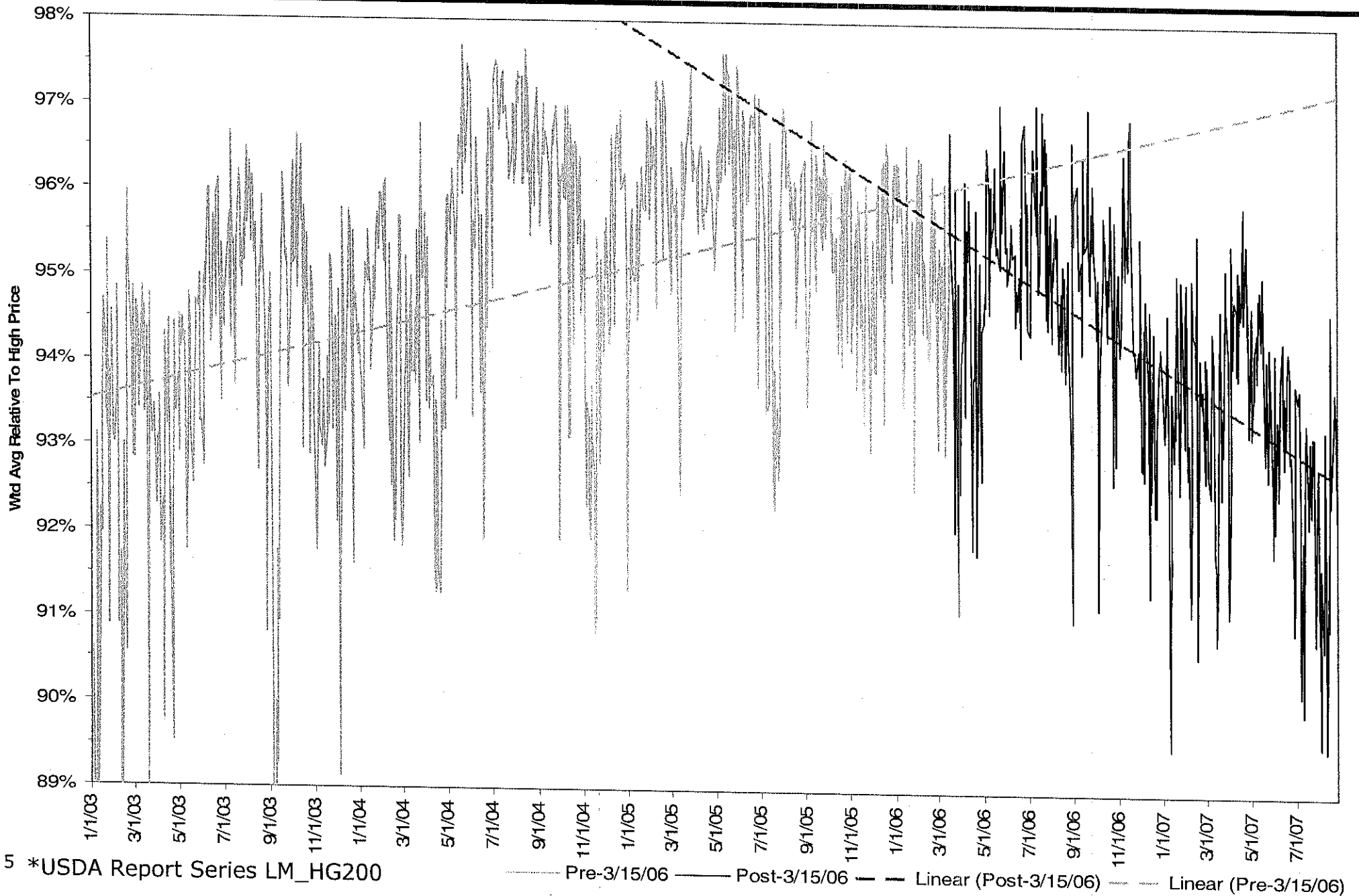
3 \*USDA Report Series LM\_HG200

# Relationship between Packer Negotiated Hogs and Packer Formula Hogs has reversed



4 \*USDA Report Series LM\_HG200

# Trend relationship between daily High Price and Wtd Avg has shifted; Daily Wtd Avg pulling away from High Price



5 \*USDA Report Series LM\_HG200

# Live Hog Market Analysis Methodology

$$\frac{\text{Wtd Avg Price}}{\text{High Price}} = \text{Wtd Average Relative Position To High Price}$$

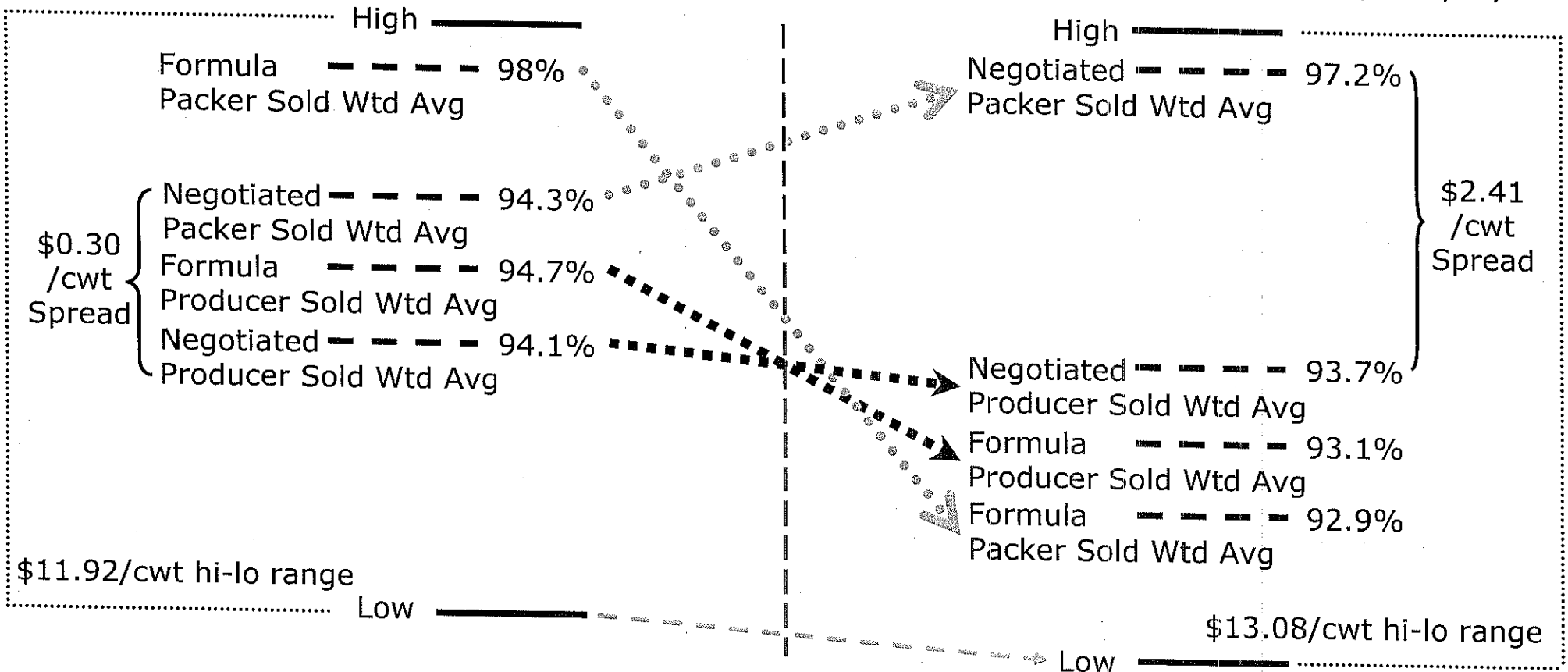
Before Rule Change

## Negotiated & Formula Hog Prices

After Rule Change

5/2/01-3/15/06\*

3/16/06-8/24/07

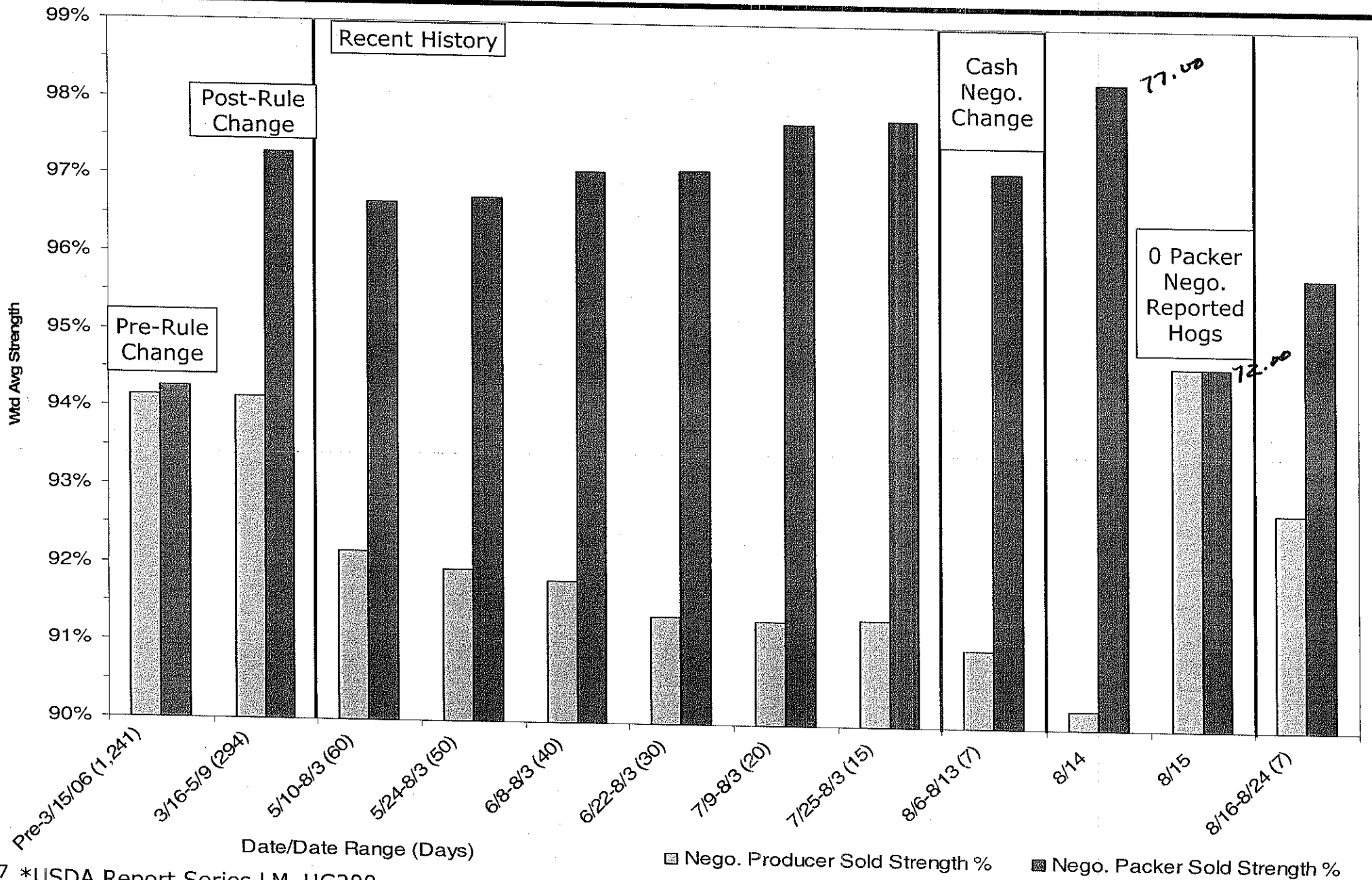


\*3/15/06 – USDA "Packer Sold" Classification Change

\*\*USDA Report Series LM\_HG200 Through 8/24/07

6 \*\*\*Formula Wtd Avgs include "Other Market Formula", "Swing Or Pork Market Formula" & "Other Purchase Agreement"

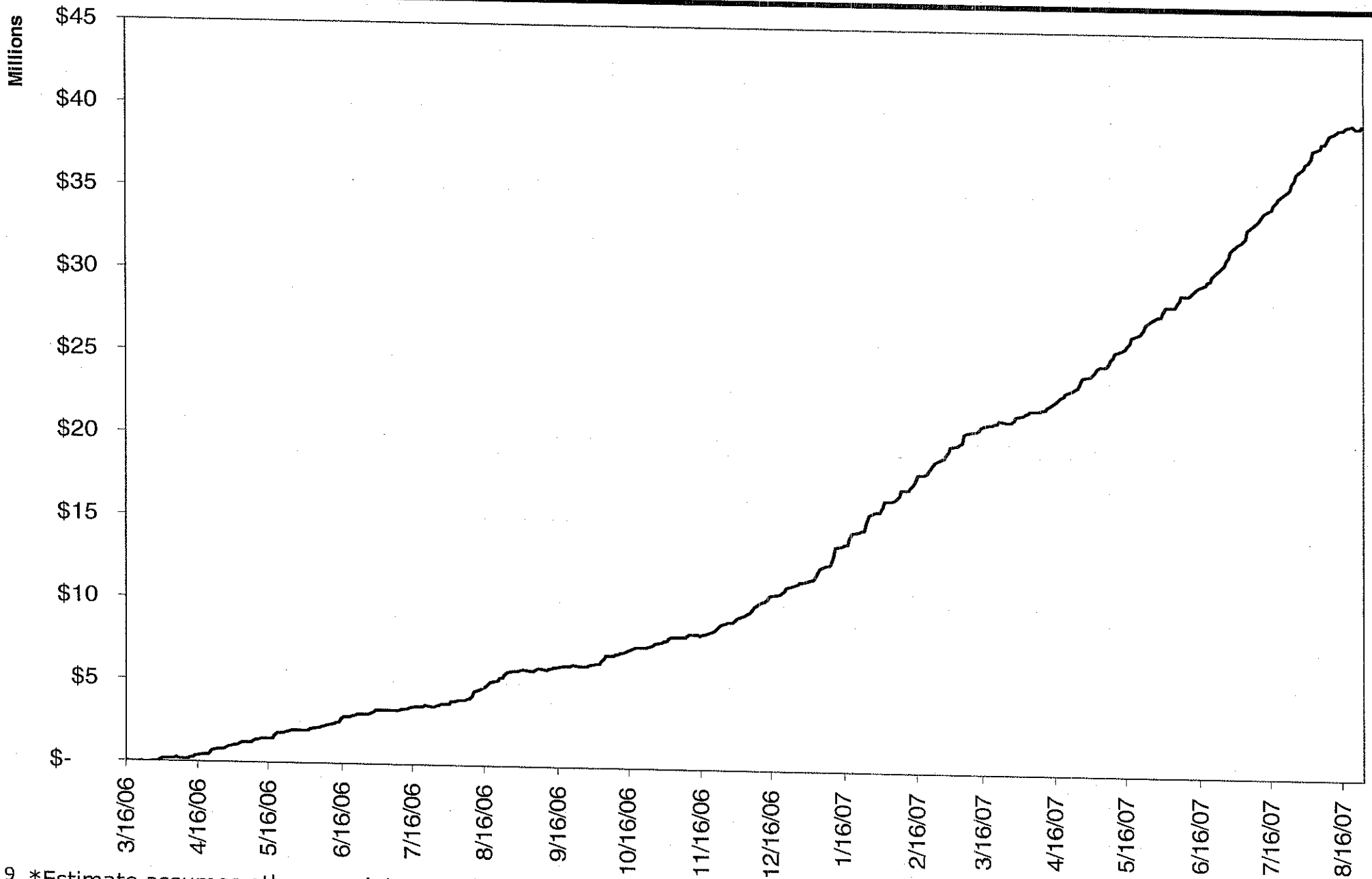
# Packer sold hogs consistently achieve higher averages than Producer sold hogs. Differential price gap is growing.



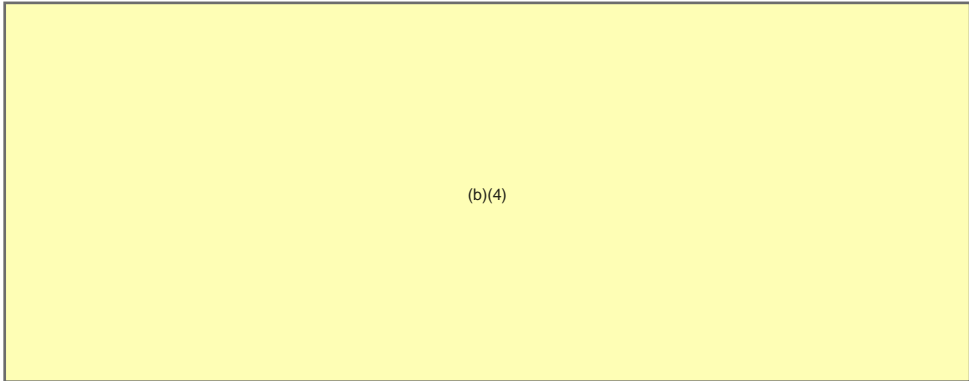
7 \*USDA Report Series LM\_HG200



# Loss is estimated between \$30-\$50M dollars to non-integrated packers who depend on market based formula contracts



<sup>9</sup> \*Estimate assumes other non-integrated packers are similarly impacted on formula agreements



(b)(4)

COMPETITION INVESTIGATION C8I4 WORKPLAN

*J*  
Lead Investigator:

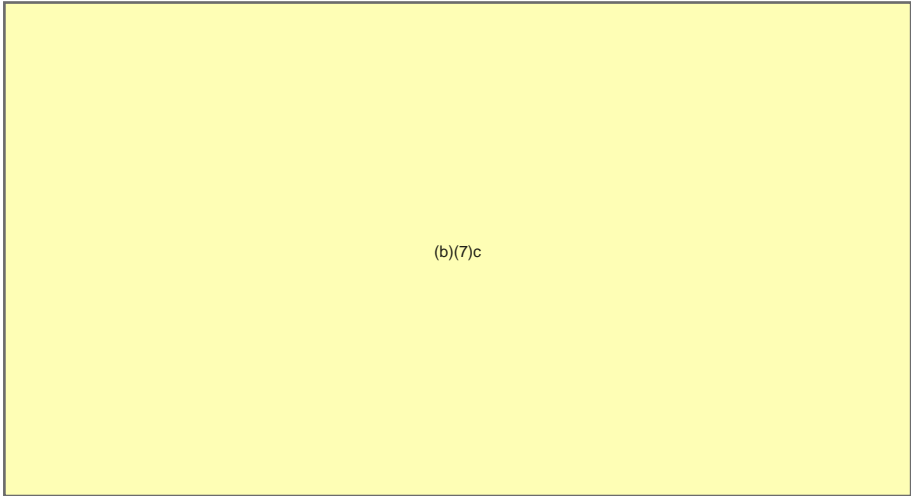
Investigator:

Lead Supervisor:

Legal Specialist:

IAD Contact:

SMRP Meeting:



(b)(7)c

Pages 2 through 6 redacted for the following reasons:

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(b)(5) predecisional and deliberative

**UNITED STATES DEPARTMENT OF AGRICULTURE**  
**GRAIN INSPECTION, PACKERS AND STOCKYARDS ADMINISTRATION**  
210 WALNUT STREET, SUITE 317  
DES MOINES, IOWA 50309

INVESTIGATIVE REPORT

| Date:          | File No. | Report Made By:             |
|----------------|----------|-----------------------------|
| April 15, 2010 | 42996    | (b)(7)c<br>Legal Specialist |

(b)(4)

**Unlawful Practices**

**SYNOPSIS OF FACTS:**

Non-responsive

Non-responsive

The major findings of the document review were as follows:

- The subpoena response did not yield documents that addressed (b)(4) rationale behind the premium/discount schedule used in the open market transactions. (b)(4)  
(b)(4)
- (b)(4) were aware of the impact of their transactions on the weighted average price reported by AMS.
- There were no documents supporting the allegation that (b)(4) and (b)(4) were participating in an agreement to buy hogs at an inflated price.
- A relatively small minority of the hogs sold by (b)(4) to (b)(4) packers were priced using formulas that reference the reported prices artificially inflated by (b)(4) actions (Western Cornbelt or Iowa-Minnesota).
- November 1, 2004 handwritten notes from a three hour meeting between (b)(7)c (b)(7)c (b)(4) discussing open market pigs. One notable entry in these notes shows (b)(7)c as advising that it is important for (b)(4) to purchase hogs on the open market to keep live hog prices high.
- (b)(7)c tries to convince the (b)(4) and cause more competition in the market place.

- Internal email correspondence showed (b)(7)c expressing concern to the procurement staff regarding the price levels paid to open market producers during the summer of 2007. (b)(7)c repeatedly urged the procurement staff to work procurement costs lower.
- In September 2007, (b)(4) & (b)(7)(C) (b)(4)
- In a handwritten letter to (b)(7)c dated October 30, 2007, (b)(7)c attributed the following statement to (b)(7)c (b)(4) (b)(4) (b)(7)c noted on the same document that (b)(7)c confronted (b)(7)c regarding this issue and (b)(7)c suggested the statement did not accurately reflect (b)(4) philosophy.
- During the depositions it was discovered that (b)(4) submits (b)(4) procurement data to AMS. (b)(4) denied small producers access to their plant so that they could purchase from (b)(4)

## Background:

On January 8, 2007 the MRO received a complaint from (b)(7)d (b)(7)d concerning the pricing and price reporting of hogs on January 5, 2007 in the Western Cornbelt. (b)(7)d stated that AMS initially reported an afternoon weighted average price for the Western Cornbelt at \$54.89, based on 7,202 head but published a correction to the afternoon report by adding an additional 5,933 head, which increased the weighted average price to \$57.20; an increase of \$2.31. In consultation with AMS, MRO identified (b)(4) as the packer that caused the price correction.

## (b)(4) Depositions:

After reviewing the documents supplied by (b)(4) (b)(5) attorney-client privilege jointly determined to depose three (b)(4). The individuals selected to be deposed were

- July 22 and 23, 2008, (b)(7)c
- August 11, 2008, (b)(7)c
- September 25-26, 2008, (b)(7)c (b)(7)c

(b)(4) all testified that the (b)(4) played a passive role in any day to day operations of the plant. Neither (b)(7)c could recall addressing open market procurement in (b)(4), or played any role in the development of (b)(4) open market purchase program. Documents received from (b)(4) suggested that (b)(4)

(b)(5) Predecisional and Deliberative (b)(7)c testified that this interest was prompted by Iowa's corporate farming law requiring packers to purchase 25 percent of its slaughter on the open market.

(b)(4)

(b)(4) **Depositions:**

The next stage of the investigation was deposing the officers and procurement staff of (b)(4)

(b)(4) The individuals selected were (b)(7)c

(b)(7)c

The (b)(7)c deposition took place on May 29, 2009. (b)(7)c testified that market conditions forced (b)(4) to pay the high prices observed during the Summer of 2007. (b)(7)c said the primary factor forcing (b)(4) to pay high base prices relative to other packers was the (b)(4). High prices were necessary to induce producers to sever a relationship with a closer packer and ship the hogs (b)(4)

(b)(7)c stated (b)(7)c could not recall the specific details surrounding the conversation between (b)(7)c and (b)(7)c regarding the statement that (b)(4) wanted to carry a high price in the market. (b)(7)c explicitly denied any role in purchasing hogs at a price higher than necessary for any reason. (b)(7)c also denied the possibility of any type of arrangement with (b)(4) or intentionally paying inflated prices for the benefit of (b)(4)

The (b)(7)c testimony occurred on June 3-4, 2009. (b)(7)c testified, in general, that (b)(4) purpose in (b)(4)

(b)(7)c testified that in (b)(7)c dealings with (b)(4) (b)(7)c has seen nothing that raises suspicion that they were colluding in any way. However, (b)(7)c related one incident which caused (b)(7)c to be suspicious that (b)(7)c was attempting to time the transaction for maximum impact on the reported AMS price.

The (b)(7)c deposition occurred on June 10-11, 2009. (b)(7)c testified that

(b)(4) never intended to pay higher prices than necessary for hogs. (b)(7)c

also testified that (b)(7)c was the primarily responsible (b)(7)c

(b)(7)c

The (b)(7)c deposition occurred on June 17-18, 2009. (b)(7)c explained the (b)(4) (b)(4) (b)(7)c testified that (b)(7)c management objective (b)(4) (b)(4) (b)(7)c explanation of the email notifying (b)(7)c (b)(7)c price impact following the January 2007 reporting error is contained in the following excerpt from the deposition transcript.

After examining the transcripts further it was discovered that (b)(4) misrepresented matrixes to farmers and have (b)(4) submit their procurement data to AMS. Plus (b)(4) denied small producers access to their plant so that they could purchase from (b)(4)

Non-responsive

(b)(4) Case Description  
August 24, 2007

**The Players:**

Non-responsive

Non-responsive

Non-responsive

Non-responsive

In January, 2007 the Packers and Stockyards Program's Midwestern office began receiving complaints from other large hog packers including (b)(4) that (b)(4) purchases from the (b)(4) producers was significantly increasing their costs of hog procurement by artificially inflating hog prices published daily by the Agricultural Marketing Service.

**Agricultural Marketing Service:** The Agricultural Marketing Service (AMS) publishes a morning and afternoon hog price report as part of the Livestock Mandatory Price Reporting Act (LMPR Act). Under the LMPR Act packers are required to report twice daily information on hogs they purchase. Relevant to this case, packers report a definition of their base hog, a base price for the base hog (the prices are on a carcass basis), and a schedule of premiums and discounts applied to hogs that fail to meet the specifications (say percent lean and loin depth) of the base hog. The definition of a particular packer's base hog and the schedule of premiums and discounts tend to be constant over time and are based on business strategies related to procurement and the retail niche the packer is filling. Alternately, the base price is negotiated daily on supply-demand conditions.

The reporting process is each packer provides to AMS the number of hogs purchased and the base price offer for the hogs. AMS then applies the packer's schedule of premiums and discounts to calculate an industry net price for a matrix (or grid) of carcass quality characteristics. AMS then publishes twice daily the base price range (attachment 1.A), and the weighted (by all packers volumes) base price (attachment 1.B), and a grid of net prices by different carcass characteristics (attachment 1.C).

**Industry Reporting Practices:** Historically, packers tended to provide definitions of their base market hogs so that some hogs earned a premium value and some were discounted off the base price. The idea being that the base price (or target) of the grid was the carcass characteristics the packer was seeking for processing or marketing reasons.

(b)(4) & (b)(5)



(b)(4) & (b)(5)

(b)(4) **Practices:** (b)(4)

(b)(4) The

definition allows for a significantly higher base price offer (compared to other packers) but after the grid discounts are applied to the carcass the net price is close to the market's net price. (b)(4)

(b)(4)

(b)(4) Both grids result in similar net prices, with the net effect being the packing facility does not bear significantly different costs of hogs procured from the negotiated

(b)(4) The procurement of negotiated (b)(4) hogs with the high base price offer, does however, significantly push the AMS base price up (\$1-5 per cwt) when

(b)(4) enters the market.

(b)(4) stand to benefit from the inflated AMS base price when they sale hogs to competing packers independent of (b)(4) (b)(4) benefit because

Competing packers had existing contracts with (b)(4) that referenced the AMS base price for purposes of establishing a transaction price. The net effect of the inflated AMS base price and the existing contracts referencing the AMS base price is that (b)(4) receive a higher price than they would have otherwise.

As a consequence of (b)(4) definition of a base market hog and the subsequent purchases from (b)(4) competing packers are paying significantly higher prices for hogs, either bought from (b)(4) or other hog producers.

(b)(4)

Figure 1. Relevant entities and transactions in (b)(4) case.

In summary, (b)(4) actions involve a buying and selling component. The buying component is:

(b)(4)

(b)(4) The

selling component, which provides (b)(4)

(b)(4)

(b)(4) These three key characteristics are identified by a lower case letter in the reference below for establishing existing data on the case (Table 1).

Table 1. Summary of existing evidence, significance, and value to case.

|                                       |
|---------------------------------------|
| (b)(5) Predecisional and Deliberative |
|---------------------------------------|

Table 1. Continues

Table 1. Continued.

(b)(5) Predecisional and Deliberative

**Data Relevance:** Assessing the relevance of exiting case data by each of the three key actions (b)(4) is engaged in, the first action is related to does (b)(5) Predecisional and Deliberative (b)(5) Predecisional and Deliberative This is well documented (Exhibits E-F2).

Documentation for whether (b)(4) (b)(4) is also well documented (Exhibits G-K).

The selling action by (b)(4) and the benefit amount (or increase cost to (b)(4) is much less documented than the first two buying components. Exhibits L and N document (b)(4) (b)(4)

**Evidence Limitations:** A limitation on the buying side is that (b)(7)c indicated in (b)(7)c affidavit that the (b)(4) (b)(4)

(b)(4) & (b)(7)(C) This suggests (b)(4) & (b)(5)

(b)(4) & (b)(5) Considerations such as these suggest (b)(4) & (b)(5) (b)(4) & (b)(5)

(b)(4) & (b)(5) Although somewhat terminological, these observations relate to the legality, or if a lack thereof to the question of (b)(5) Predecisional and Deliberative The chart in Exhibit G also suggests (b)(5) Predecisional and Deliberative (b)(5) Predecisional and Deliberative

<sup>1</sup> Specifically (b)(7)c stated: (b)(4)

(b)(4)

<sup>2</sup> "Price discovery" and "price determination" are economic terms of art. Price discovery is how buyers and sellers learn what each will agree on as a particular price to effect a given transaction. Price determination refers to how the broad forces of supply and demand interact to establish a market price that buyers and sellers agree is acceptable for trade. In cases of monopoly, the single seller has sufficient market power that they can restrict output (alter supply) to raise prices or "determine" prices.

Currently, the limitation in evidence on the selling side of (b)(4) actions is whether

(b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative, it would seem either

(b)(5) Predecisional and Deliberative

Currently we have evidence suggesting (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

**Summary:** (b)(4) is using two distinct pricing grids, (b)(4)

(b)(4)

(b)(4) that appears (b)(5) Predecisional and Deliberative That is,

(b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative Evidence

shows the effect of (b)(4) base hog definition causes base

prices paid for (b)(4) hogs to be significantly higher, which in turn causes the

reported AMS negotiated base hog price to be significantly higher when (b)(4)

purchases hogs from (b)(4) (b)(4)

(b)(4)

(b)(4) The high

negotiated base price, however, is reported in the AMS price reports and is then

referenced in contracts existing between (b)(4) and packers

competing with (b)(4) These contracts were in existence prior to (b)(4)

(b)(4) program.

The effect is that (b)(4) can artificially (through a non-value added method) inflate

benefits to (b)(4) The single largest evidence limitation

is a lack of information connecting (b)(4) together in designing

the (b)(4) with the intention of benefiting (b)(4)

(b)(4) who sell to competing packers. There is sufficient evidence of the

buying effect on AMS prices, but limited evidence that (b)(4) are benefiting

(although it seems (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

Another issue is whether (b)(5) Predecisional and Deliberative That is, why should

(b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative? (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

While the market may in the longer term discipline (b)(4) there are several short and intermediate term concerns. The actions by (b)(4) are distorting indirectly market prices. This is not just the cash market but appears also to extend into the futures markets. The distorted prices are sending false signals on the cash market to producers, which could lead to greater price volatility through over production and a sudden price deflation.

Another interesting question is the relation between (b)(4) and the (b)(4) (b)(4) it is purchasing from (b)(4) (b)(4). Is this (b)(5) Predecisional and Deliberative (b)(5) Predecisional and Deliberative

A final concern with (b)(4) actions is if (b)(4) can define a base hog outside the AMS definition, and have AMS accept the artificially high base prices reported by (b)(4) from these transactions, why can't any other (b)(4) do the same? Leaving this path open seems to led to increased confusion in livestock prices.

LM\_HG212  
Des Moines, Iowa

Thu, Aug 09, 2007

USDA Market News

This report is based on information provided by companies that agreed to continue to participate in Livestock Mandatory Reporting on a voluntary basis.

WESTERN CORNBELT DAILY DIRECT AFTERNOON HOG REPORT BASED ON STATE OF ORIGIN  
PLANT DELIVERED PURCHASE DATA FOR Thursday, August 9, 2007 (As of 1:30 PM)

CURRENT VOLUME BY PURCHASE TYPE  
LIVE AND CARCASS BASIS

|                                   | Estimated Today | Actual Today | Actual Week Ago | Actual Year Ago |
|-----------------------------------|-----------------|--------------|-----------------|-----------------|
| Producer Sold:                    |                 |              |                 |                 |
| Negotiated                        | 12,591          | 11,787       | 9,194           | 9,678           |
| Other Market Formula              | 30,815          | 7,963        | 24,407          | 25,319          |
| Swine or Pork Market Formula      | 77,671          | 45,939       | 40,687          | 32,534          |
| Other Purchase Arrangement        | 18,077          | 13,434       | 12,647          | 14,776          |
| Packer Sold (All Purchase Types): | 8,918           | 4,086        | 5,521           | 5,097           |

NEGOTIATED PURCHASE (Including Packer Sold)

Barrows & Gilts (carcass basis): 11,033

Compared to Prior Day's closing weighted average (LM\_HG208), 1.78 lower.

Base Price Range \$62.50 - \$78.75, Weighted Average \$72.59

Base Market Hog 185 lb Carcass Basis  
(0.9-1.1 inch back-fat, 6 square inch loin/2.0 depth)

WESTERN CORNBELT DAILY DIRECT NEGOTIATED HOG PURCHASES MATRIX  
185 lb Carcass Basis  
(Defined by Muscle and Fat)

LOIN AREA/DEPTH (INCHES)

| BACK-FAT | 4.0/1.4     | 5.0/1.7     | 6.0/2.0     | 7.0/2.3     | 8.0/2.7     |
|----------|-------------|-------------|-------------|-------------|-------------|
| 0.4      | 65.00 80.03 | 66.44 80.75 | 66.44 82.25 | 66.44 83.75 | 66.44 84.75 |
| 0.5      | 62.50 81.03 | 65.00 81.03 | 66.44 81.50 | 66.44 83.00 | 66.44 84.25 |
| 0.6      | 62.50 79.78 | 65.00 81.03 | 66.50 81.03 | 68.00 82.25 | 69.00 83.75 |
| 0.7      | 62.50 78.53 | 62.50 79.78 | 65.00 79.78 | 68.00 81.50 | 69.00 83.00 |
| 0.8      | 60.50 78.53 | 62.50 78.53 | 65.00 79.78 | 66.50 80.75 | 69.00 82.25 |
| 0.9      | 60.50 77.03 | 62.50 77.03 | 62.50 78.53 | 65.00 79.75 | 66.44 81.50 |
| 1.0      | 59.50 74.53 | 60.50 77.03 | 62.50 77.03 | 65.00 78.75 | 66.44 80.75 |
| 1.1      | 58.50 72.75 | 60.50 74.53 | 62.50 75.75 | 62.50 77.75 | 62.57 79.75 |
| 1.2      | 58.50 72.75 | 59.50 72.75 | 60.50 74.75 | 62.50 76.75 | 62.57 78.75 |
| 1.4      | 53.54 72.75 | 53.54 72.75 | 53.54 72.75 | 53.54 74.75 | 53.54 76.75 |

CARCASS WEIGHT DIFFERENTIALS

|      |        |       |      |       |      |      |       |      |
|------|--------|-------|------|-------|------|------|-------|------|
| 145# | -27.20 | -8.16 | 175# | -3.75 | 0.00 | 205# | 0.00  | 0.00 |
| 155# | -27.20 | -5.00 | 185# | -1.50 | 0.00 | 215# | -3.00 | 0.00 |
| 165# | -10.20 | -0.67 | 195# | 0.00  | 0.00 | 225# | -5.26 | 0.00 |

MEASUREMENTS BASED ON SLAUGHTER DATA SUBMITTED

5 Day Rolling Average Market Hog: 194.94 lb carcass, 0.75 inch back-fat,  
7.05 square inch loin/2.35 inch loin depth, FFLI: 51.38%

Price Range \$66.50 - \$80.75

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 SWINE OR PORK MARKET FORMULA PURCHASE (Including Packer Sold)

Barrows & Gilts (carcass basis): 44,574

Base Price Range \$62.72 - \$77.72, Weighted Average \$69.93

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 NEGOTIATED PURCHASE (Including Packer Sold)

Barrows & Gilts (live basis, 240-300 lbs): 1,780

Compared to Prior Day's closing weighted average (LM\_HG208), 1.46 lower.

Price Range \$50.99 - \$58.00, Weighted Average \$54.58

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 SOWS

NEGOTIATED PURCHASE (Including Packer Sold)

Sows Purchased (live and carcass basis): 792

|              | Weight Range | Head Count | Avg Weight | Price Range | Wtd Avg |
|--------------|--------------|------------|------------|-------------|---------|
| (Live Basis) | 300-449 lbs. | 264        | 401        | 38.19-42.76 | 41.26   |
|              | 450-499 lbs. | 96         | 461        | 40.19-42.78 | 42.00   |
|              | 500/up lbs.  | 432        | 562        | 41.00-44.60 | 42.68   |

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 ALL SWINE PURCHASES BY STATE OF ORIGIN

|           |        |              |       |
|-----------|--------|--------------|-------|
| Iowa      | 45,050 | Kansas       | 836   |
| Minnesota | 22,230 | Missouri     | 1,290 |
| Nebraska  | 11,041 | South Dakota | 3,863 |

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 Source: USDA Market News, Des Moines, IA  
 515-284-4460 email: [desm.lgmn@usda.gov](mailto:desm.lgmn@usda.gov)  
<http://www.ams.usda.gov/LSMarketNews>

1500C

Assessment of (b)(4) Case File  
August 8, 2007

**Allegation:** (b)(4) is using an unfair carcass merit buying program with the intent and effect of manipulating prices.

**Mechanism:** To capitalize on a potential price manipulating system, (b)(4) uses a mechanism with coordinated buying and selling components. The buying component consists of (b)(4) (b)(4)

(b)(4) The definition allows for a significantly higher base price offer (compared to other packers) but after the grid discounts are applied to the carcass the net price is close to the market net price. (b)(4)

(b)(4) Both grids result in similar net prices, with the net effect being the packing facility does not bear significantly different costs of hogs procured from the negotiated (b)(4) The procurement of negotiated (b)(4)

(b)(4) hogs with the high base price offer, does however, significantly affect the AMS price reports when (b)(4) enters the market.

The selling component of (b)(4) pricing manipulation involves (b)(4) (b)(4) The selling component of the mechanism provides the monetary incentive to (b)(4) The selling component depends on two features. First, it depends on the action taken in the (b)(4)

(b)(4) The second feature is that the hogs (b)(4) (b)(4) The net effect of the two features is that (b)(4) receive a higher price than they would have otherwise. That is, the actions significantly increase the price competing packers pay for (b)(4) hogs.

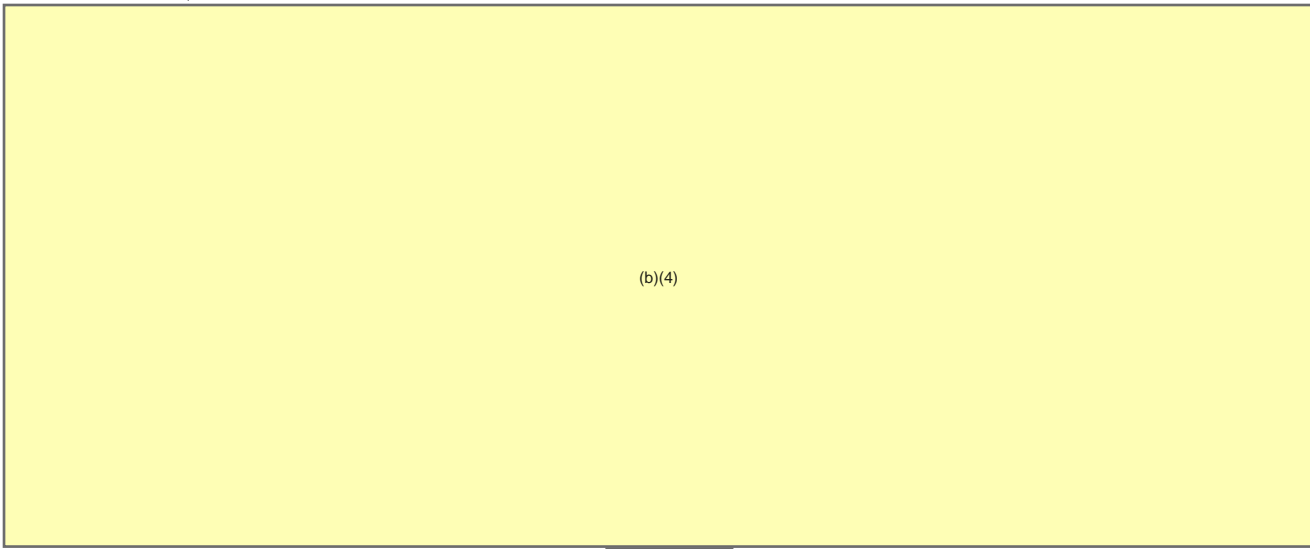


Figure 1. Relevant entities and transactions in (b)(4) price manipulation case.



In summary, the mechanism for (b)(4) to manipulate prices involves a buying and selling component. The buying component relies on: (b)(4)

(b)(4)  
(b)(4) the selling component, which provides the

(b)(4)  
(b)(4) The three key characteristics are identified by a

lower case letter in the reference for establishing evidentiary value (Table 1).

Table 1. Summary of evidence, significance, and value to key price manipulation mechanisms components.

| Exhibit | Significance | Evidentiary value to manipulation component |
|---------|--------------|---|
|---------|--------------|---|

|                                       |  |  |
|---------------------------------------|--|--|
| (b)(5) Predecisional and Deliberative |  |  |
|---------------------------------------|--|--|

Table 1. Continues

Table 1. Continued.

| Exhibit                               | Significance | Evidentiary Value |
|---------------------------------------|--------------|-------------------|
| (b)(5) Predecisional and Deliberative |              |                   |

The key mechanisms alleged for (b)(4) to manipulate prices involve both buying and selling activities.

**Evidence Strength:** Assessing the strength of evidence for each key component as listed in the investigative report shows the following points. The key buying component (b)(4)

(b)(4) is well documented (Exhibits E-F2).

The key buying component (b)(4) is also well documented (Exhibits G-K).

The key selling component, which provides (b)(4) (b)(4) This key component is much less documented than the first two buying components. Exhibits L and N document such (b)(4) (b)(4) producers.

**Evidence Limitations:** A limitation on the two buying components is that (b)(7)c indicated in (b)(7)c affidavit that the (b)(4)

(b)(4)

<sup>1</sup> Specifically (b)(7)c stated: (b)(4) (b)(4)

<sup>2</sup> “Price discovery” and “price determination” are economic terms of art. Price discovery is how buyers and sellers learn what each will agree on as a particular price to effect a given transaction. Price determination refers to how the broad forces of supply and demand interact to establish a market price that buyers and sellers agree is acceptable for trade. In cases of monopoly, the single seller has sufficient market power that they can restrict output (alter supply) to raise prices or “determine” prices.

method (b)(7)c describes to (b)(4) This suggests (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative Considerations such as these suggest (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative Although somewhat terminological, these observations relate to the legality, or if a lack thereof to the question of (b)(5) Predecisional and Deliberative The chart in Exhibit G also

suggests (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

Currently, the limitation in evidence on the selling side of (b)(4) actions is whether

(b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative Given that (b)(4) are on the (b)(4) it would seem either

(b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

Currently we have evidence suggesting the (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

There is an additional factor that is a concern, even though (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

**Conclusions:** (b)(4) is using two distinct pricing grids, (b)(4)

(b)(4) (b)(4)

(b)(4) which is published on

AMS's daily hog price reports. Evidence shows the effect of (b)(4)

(b)(4) base hog definition causes base prices paid for (b)(4) hogs to be significantly higher, which in turn causes the reported AMS negotiated base hog price to be significantly higher when (b)(4) purchases hogs from (b)(4) (b)(4)

(b)(4)

(b)(4) The high negotiated base price, however, is reported in the AMS price reports and is then referenced in contracts existing between (b)(4)

and packers competing (b)(4) These contracts were in existence prior to

(b)(4) initiating (b)(4) program.

The effect is that (b)(4) can artificially (through a non-value added method) inflate benefits to its (b)(4) The single largest evidence limitation is a lack of information connecting (b)(4) together in designing the (b)(4) pricing grid with the intention of benefiting (b)(4)

(b)(4) who sell to competing packers. There is sufficient evidence of the buying effect on AMS prices, but limited evidence that (b)(4) are benefiting (although it seems (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

Another issue is whether (b)(5) Predecisional and Deliberative That is, why should

(b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

While the market may in the longer term discipline (b)(4) there are several short and intermediate term concerns. The actions by (b)(4) are distorting indirectly market prices. This is not just the cash market but appears also to extend into the futures markets. The distorted prices are sending false signals on the cash market to producers, which could lead to greater price volatility through over production and a sudden price deflation.

On the futures market, there appears (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative. Whether this is (b)(5) Predecisional and Deliberative

(b)(5) Predecisional and Deliberative

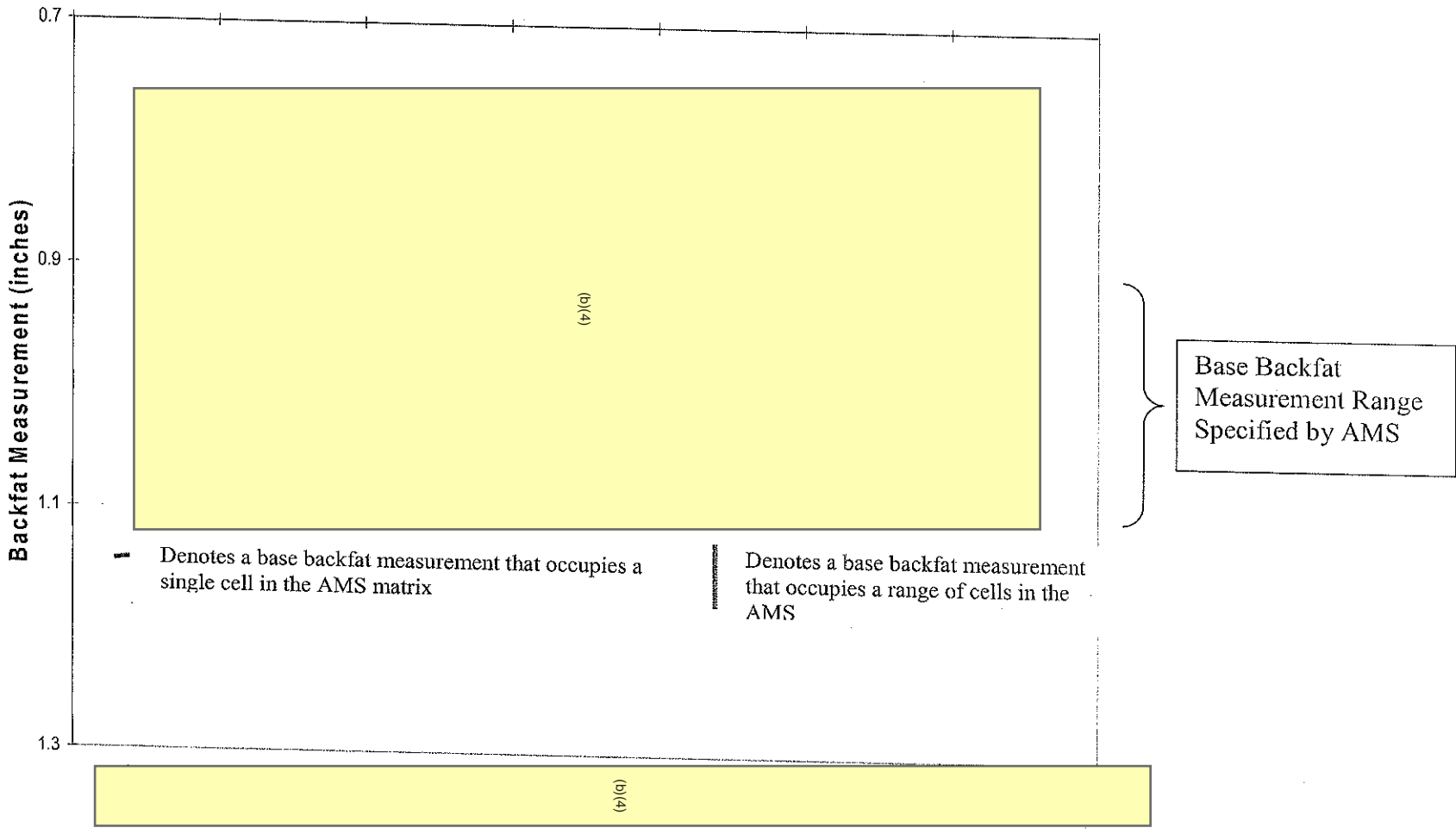
(b)(5) Predecisional and Deliberative The (b)(4) selling to (b)(4) are, however, (b)(4) (b)(4) or a producer that held a governance position on the (b)(4)

A final concern with (b)(4) actions is if (b)(4) can define a base hog outside the AMS definition, and have AMS accept the artificially high base prices reported by

(b)(4) from these transactions, why can't any other (b)(4) do the same?

Down this path leads massive confusion in livestock prices.

### Comparison of Packer Base Price Ranges as Defined in the Matrix appearing on the AMS Daily Price Reports (Backfat at 2.0 in loineye)



LM\_HG203

Des Moines, Iowa

Wed, May 23, 2007

USDA Market News

This report is based on information provided by companies that agreed to continue to participate in Livestock Mandatory Reporting on a voluntary basis.

NATIONAL DAILY DIRECT AFTERNOON HOG REPORT

PLANT DELIVERED PURCHASE DATA FOR Wednesday, May 23, 2007 (As of 1:30 PM)

CURRENT VOLUME BY PURCHASE TYPE  
LIVE AND CARCASS BASIS

|                                   | Estimated Today | Actual Today | Actual Week Ago | Actual Year Ago |
|-----------------------------------|-----------------|--------------|-----------------|-----------------|
| Producer Sold:                    |                 |              |                 |                 |
| Negotiated                        | 29,220          | 25,818       | 27,465          | 19,442          |
| Other Market Formula              | 24,285          | 28,710       | 8,682           | 12,126          |
| Swine or Pork Market Formula      | 126,397         | 78,705       | 75,147          | 64,815          |
| Other Purchase Arrangement        | 32,779          | 29,493       | 24,563          | 27,482          |
| Packer Sold (All Purchase Types): | 21,657          | 10,361       | 13,637          | 5,935           |

NEGOTIATED PURCHASE (Including Packer Sold)

Barrows & Gilts (carcass basis): 18,547

Compared to Prior Day's closing weighted average (LM\_HG200), .09 lower.

Base Price Range \$63.75 - \$79.50, Weighted Average \$73.60

Base Market Hog 185 lb Carcass Basis

(0.9-1.1 inch back-fat, 6 square inch loin/2.0 depth)

NATIONAL DAILY DIRECT NEGOTIATED HOG PURCHASE MATRIX  
185 lb Carcass Basis  
(Defined by Muscle and Fat)

LOIN AREA/DEPTH (INCHES)

| BACK-FAT | 4.0/1.4     | 5.0/1.7     | 6.0/2.0            | 7.0/2.3     | 8.0/2.7     |
|----------|-------------|-------------|--------------------|-------------|-------------|
| 0.4      | 66.25 80.50 | 67.75 81.50 | 69.25 83.00        | 70.25 84.50 | 70.25 85.50 |
| 0.5      | 63.75 79.68 | 66.25 80.50 | 69.25 82.25        | 70.25 83.75 | 70.25 85.00 |
| 0.6      | 63.75 81.00 | 66.25 81.00 | 67.75 81.50        | 69.25 83.00 | 70.25 84.50 |
| 0.7      | 63.75 81.00 | 63.75 81.00 | 66.25 81.00        | 69.25 82.25 | 70.25 83.75 |
| 0.8      | 61.75 81.00 | 63.75 81.00 | 66.25 81.00        | 67.75 81.50 | 70.25 83.00 |
| 0.9      | 61.75 77.25 | 63.75 77.25 | <u>63.75 78.50</u> | 66.25 80.50 | 69.25 82.25 |
| 1.0      | 60.75 77.25 | 61.75 77.25 | <u>63.75 77.50</u> | 66.25 79.50 | 67.75 81.50 |
| 1.1      | 59.75 73.51 | 61.75 74.50 | <u>63.75 76.50</u> | 63.75 78.50 | 67.75 80.50 |
| 1.2      | 59.75 73.50 | 60.75 73.51 | 61.75 75.50        | 63.75 77.50 | 66.25 79.50 |
| 1.4      | 56.25 73.50 | 59.14 73.50 | 59.14 73.51        | 59.14 75.50 | 59.14 77.50 |

*AMS left of base hog*

CARCASS WEIGHT DIFFERENTIALS

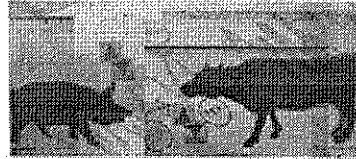
|      |        |       |      |       |      |      |       |      |
|------|--------|-------|------|-------|------|------|-------|------|
| 145# | -30.00 | -7.05 | 175# | -3.79 | 0.00 | 205# | -5.64 | 0.00 |
| 155# | -30.00 | 0.00  | 185# | -1.50 | 0.00 | 215# | -5.64 | 0.00 |
| 165# | -11.25 | 0.00  | 195# | -1.41 | 0.00 | 225# | -5.64 | 0.00 |

MEASUREMENTS BASED ON SLAUGHTER DATA SUBMITTED

5-Day Rolling Average Market Hog: 199.17 lb carcass, 0.74 inch back-fat, 7.05 square inch loin/2.35 inch loin depth, FFLI: 51.53%

CME Commodity Products

Daily Livestock Report



Livestock market information provided by Steve Meyer and Len Steiner.

| E-Livestock Volume    | 3-Aug | 2-Aug | 27-Jul |
|-----------------------|-------|-------|--------|
| LE (E-Live Cattle):   | 2402  | 1816  | 2480   |
| GF (E-Feeder Cattle): | 21    | 19    | 23     |
| HE (E-Lean Hogs):     | 5963  | 5339  | 4289   |

Free real-time Globex quotes: [www.cme.com/elivestockquotes](http://www.cme.com/elivestockquotes)

Market Comments

Friday was another very strong day for US hog futures, with October, December and February contracts closing at new contract highs. Even the nearby August contract registered strong gains, despite continuing news of heavy pork supplies coming to market. Indeed, a combination of weekly hog slaughter near 2 million head (+5.6% vs. 06) and also 1% heavier hog carcasses, caused overall weekly pork production for the week to jump by more than 7% compared to last year. Despite estimates of negative margins, packers appear willing to process as many hogs as they can find and pay a premium for doing so. For the week, the lean hog carcass price was an average \$70.99 /cwt, 3.44% higher than a year ago. The pork cutout, on the other hand, was for the week at \$72.09 /cwt, now slightly down compared to last year. Furthermore, the lean hog carcass price on Friday closed at \$72.70 and above the cutout value of \$70.95. It is not often that the cutout trades below the price of hogs, the last time it did was at the end of June and early July following the surge in pork supplies.

At near \$2 per cwt, the spread between carcass and cutout values is very significant and indicates that a) packers are somehow getting ahead of the market and may soon need to adjust their processing plans and avoid further cutout declines; or b) packers are ramping up production in order to fill orders (China orders speculation continues rampant). It is our understanding that USDA pricing reports reflect only prices paid in the US market by US market participants. In the short term, it is possible that packers are receiving revenue streams that are not immediately apparent. However, if it is true that US packers are increasing slaughter to fill export orders and those orders start flowing out, we should see an eventual impact on US prices as domestic supplies tighten. As the DLR on August 1 pointed out, it is important to keep an eye on ham cutout values in the second half of the year, an item that normally has a seasonal up and generally carries overall pork prices into the high demand Q4 period. Ham prices closed at around \$66 /cwt this week while the Q4 implied futures price is well over \$90. Ham prices need to gain some traction to justify the very lofty futures prices for October and December. One casualty of the surge in pork supplies this week—pork belly futures for August declined the permissible daily limit of 450 points on Friday.

PRODUCTION & PRICE SUMMARY

| Item                         | Units         | Week Ending |            |             |           | 2007 YTD | Y/Y % Change |       |
|------------------------------|---------------|-------------|------------|-------------|-----------|----------|--------------|-------|
|                              |               | Last Week   | Prior Week | Pct. Change | Last Year |          |              |       |
|                              |               | 4-Aug-07    | 28-Jul-07  |             | 5-Aug-06  |          |              |       |
| C FI Slaughter               | Thou. Head    | 671         | 668        | 0.45%       | 628       | 6.92%    | 20,001.0     | 1.6%  |
| A Avg. Live Weight           | Lbs.          | 1,283       | 1,282      | 0.08%       | 1,273     | 0.79%    | 1,261.2      | -0.5% |
| T Avg. Dressed Weight        | Lbs.          | 781         | 778        | 0.39%       | 780       | 0.13%    | 766.0        | -1.1% |
| T Beef Production            | Million Lbs.  | 522.3       | 517.9      | 0.85%       | 488.9     | 6.83%    | 15,274.7     | 0.6%  |
| L Live Fed Steer Price       | \$ per cwt    | 90.75       | 90.63      | 0.13%       | 80.52     | 12.70%   |              |       |
| E Georgia Feeder Steer Price | 600-700 Lbs.  | 106.91      | 103.63     | 3.17%       | 104.43    | 2.37%    |              |       |
| Beef Cutout Value            | 600-900 Ch.   | 143.75      | 140.77     | 2.12%       | 140.62    | 2.23%    |              |       |
| Hide/Offal                   | \$/cwt        | 9.74        | 9.80       | -0.61%      | 8.35      | 16.65%   |              |       |
| H FI Slaughter               | Thou. Head    | 1,992       | 1,977      | 0.76%       | 1,887     | 5.58%    | 61,242.0     | 2.3%  |
| O Avg. Dressed Weight        | Lbs.          | 198.0       | 199.0      | -0.50%      | 196.0     | 1.02%    | 201.6        | -0.1% |
| G Pork Production            | Million Lbs.  | 394.7       | 392        | 0.69%       | 368.4     | 7.14%    | 12,330.5     | 2.2%  |
| S Iowa-S. Minn. Direct       | Wtd. Avg.     | 70.99       | 70.55      | 0.62%       | 68.63     | 3.44%    |              |       |
| Natl. Base Carcass Price     | Wtd. Avg.     | 70.34       | 69.86      | 0.69%       | 65.60     | 7.23%    |              |       |
| Natl. Net Carcass Price      | Wtd. Avg.     | 72.89       | 72.36      | 0.73%       | 67.94     | 7.29%    |              |       |
| Pork Cutout                  | 185 Lbs.      | 72.09       | 75.11      | -4.02%      | 72.27     | -0.25%   |              |       |
| C Young Chicken Slaughter    | Million Head  | 164.4       | 165.8      | -0.84%      | 161.3     | 1.95%    | 4,791.4      | -0.7% |
| H Avg. Weight                | Lbs.          | 5.48        | 5.46       | 0.37%       | 5.22      | 4.98%    | 5.4          | 1.1%  |
| I Chicken Production         | Million Lbs.  | 918.5       | 922.2      | -0.40%      | 857.3     | 7.14%    | 25,967.9     | 0.4%  |
| C Eggs Set                   | Million       | 218.3       | 217.8      | 0.22%       | 214.5     | 1.75%    | 6,487.3      | 0.4%  |
| K Chicks Placed              | Million Head  | 177.3       | 173.2      | 2.37%       | 173.1     | 2.42%    | 5,298.6      | 0.8%  |
| E 12-City Broiler Price      | Composite     | 78.62       | 80.51      | -2.35%      | 67.4      | 16.65%   |              |       |
| N Georgia Dock Broiler Price | 2.5-3 Lbs.    | 80.26       | 80.64      | -0.47%      | 69.29     | 15.83%   |              |       |
| T Young Turkey Slaughter     | Million Head  | 5,015       | 4,832      | 3.79%       | 4,845     | 3.51%    | 136.0        | 1.5%  |
| U Avg. Weight                | Lbs.          | 28.23       | 28.19      | 0.14%       | 27.49     | 2.69%    | 28.9         | -0.5% |
| R Turkey Production          | Million Lbs.  | 141.6       | 136.2      | 3.93%       | 133.2     | 6.30%    | 3,931.0      | 1.1%  |
| K Eastern Region Hen Price   | 8-16 Lbs.     | 88.00       | 87.70      | 0.34%       | 76.20     | 15.49%   |              |       |
| G Com. Omaha                 | \$ per Bushel | 3.14        | 3.06       | 2.61%       | 2.17      | 44.70%   |              |       |
| R Wheat, Portland            | \$ per Bushel | 6.54        | 6.58       | -0.61%      | 3.95      | 65.57%   |              |       |
| A Wheat, Kansas City         | \$ per Bushel | 6.30        | 6.34       | -0.63%      | 4.71      | 33.76%   |              |       |
| I Soybeans, S. Iowa          | \$ per Bushel | 7.90        | 7.48       | 5.61%       | 5.43      | 45.49%   |              |       |
| N Soybean Meal, 48% Decatur  | \$ per Ton    | 207.10      | 207.30     | -0.10%      | 162.40    | 27.52%   |              |       |

\* Chicken & turkey slaughter & production are 1 week earlier than the date at the top of this sheet.

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(b)(4) Analysis

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(b)(4)

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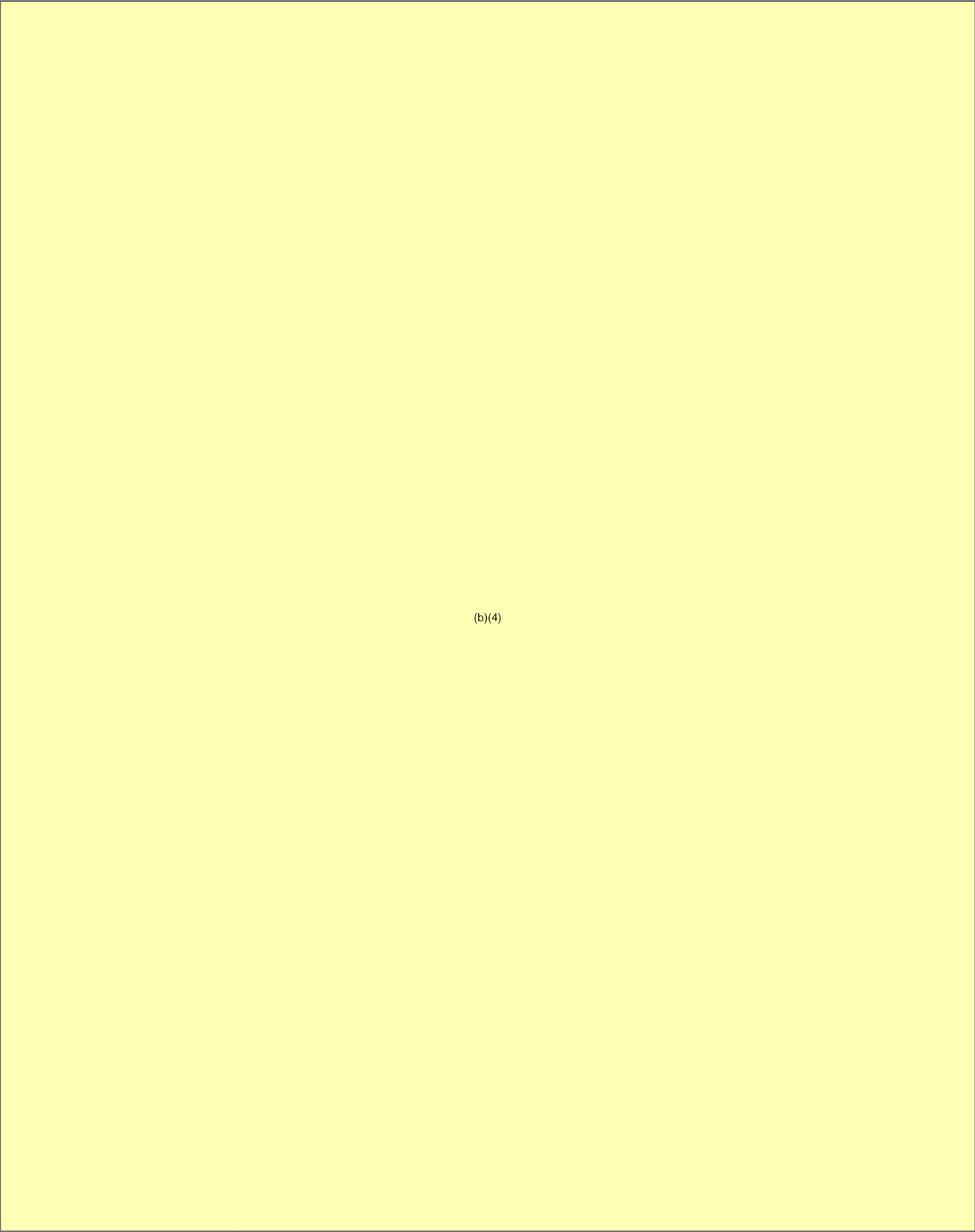
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(b)(4), (b)(7)e

Statistical Significance (b)(4), (b)(7)e

(b)(4), (b)(7)e





(b)(4)

(b)(4)

(b)(4)

(b)(4) & (b)(7)(E)

(b)(7)e

(b)(7)e

(b)(7)e

(b)(7)e



(b)(4) & (b)(7)(E)

(b)(4) & (b)(7)(E)

(b)(4) & (b)(7)(E)

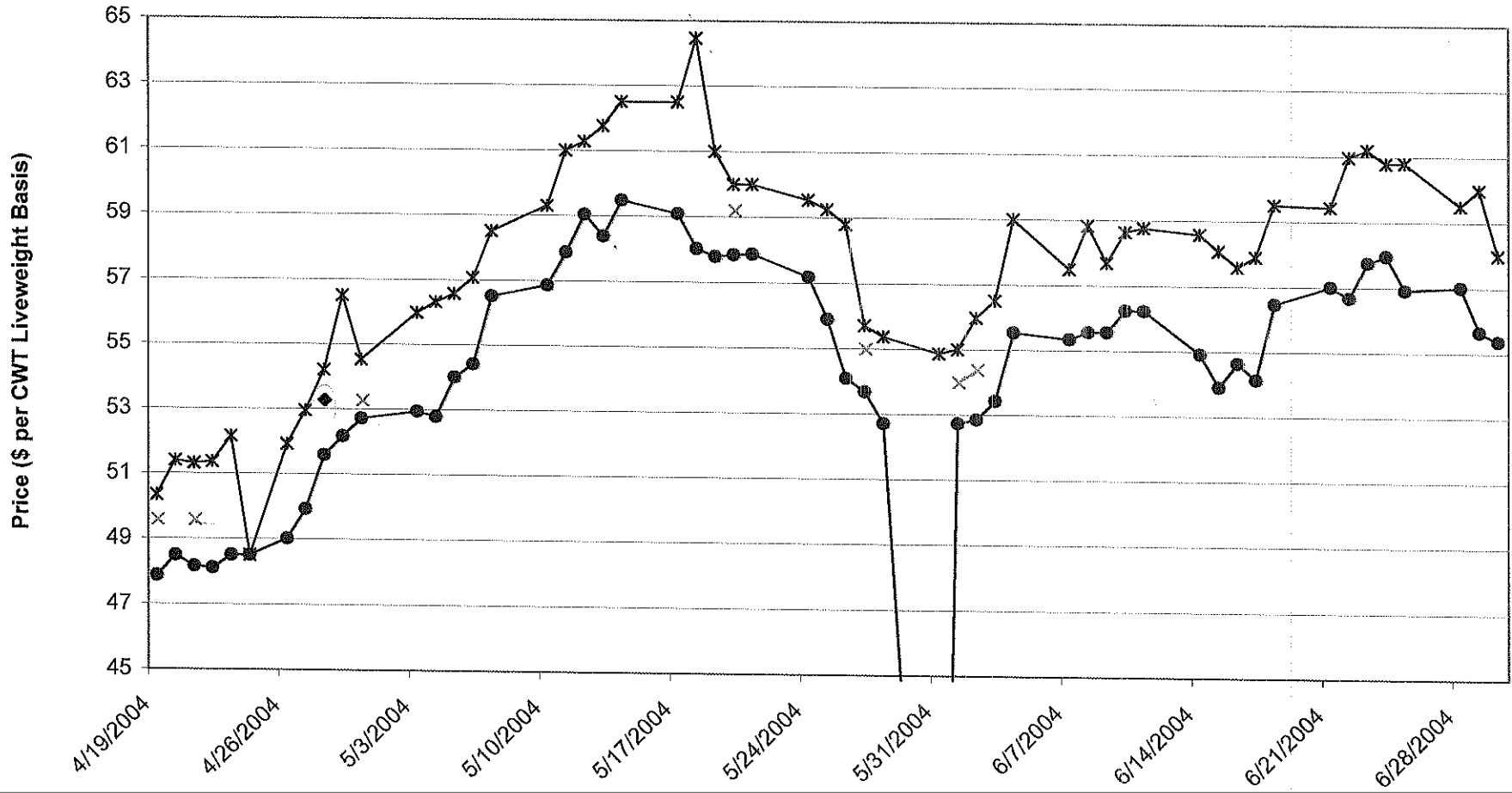
(b)(4) & (b)(7)(E)

(b)(4) & (b)(7)(E)

(b)(4) & (b)(7)(E)

Base Prices Paid to

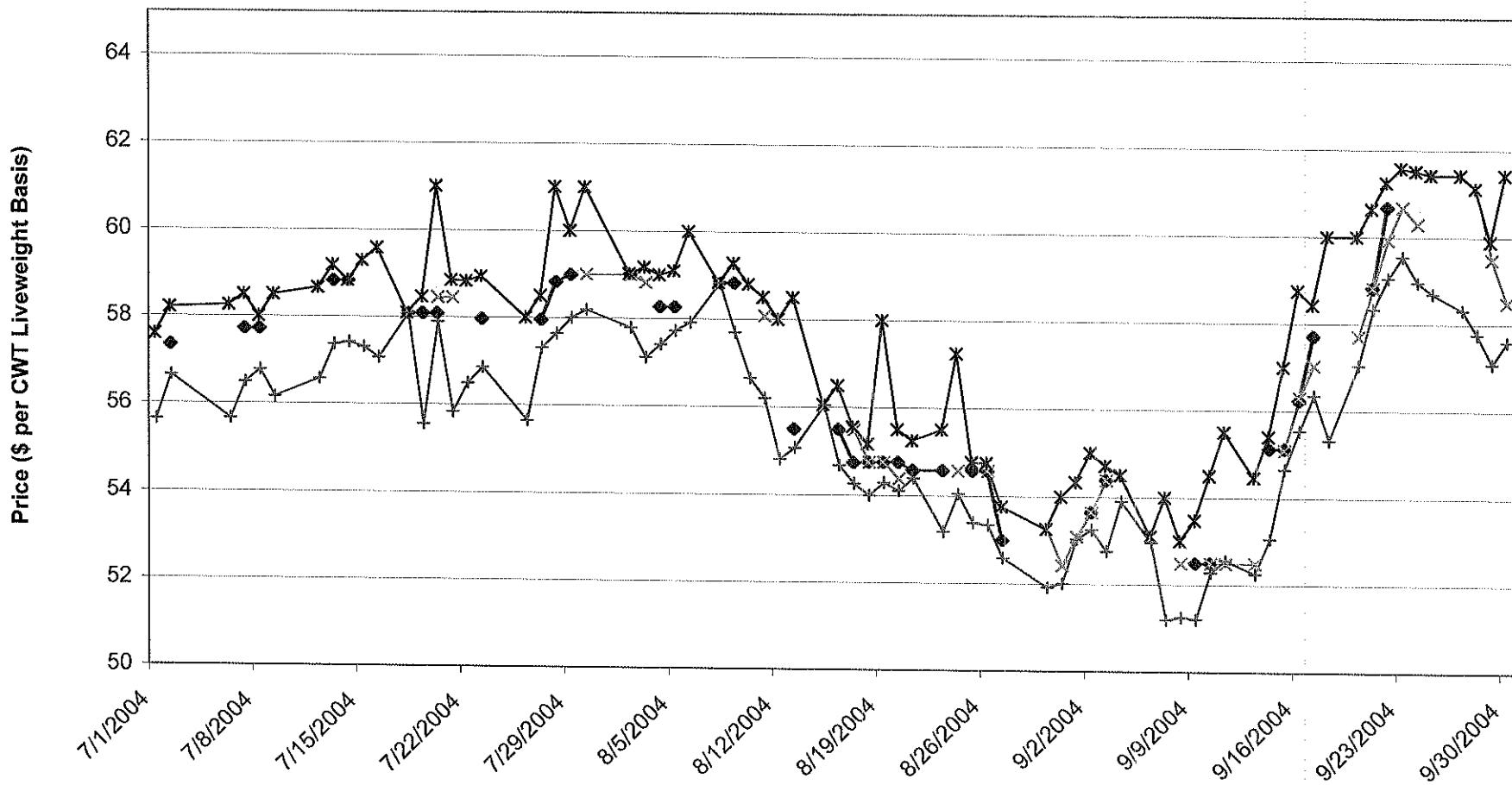
(b)(1)



(b)(4)

Base Prices Paid to

(b)(9)

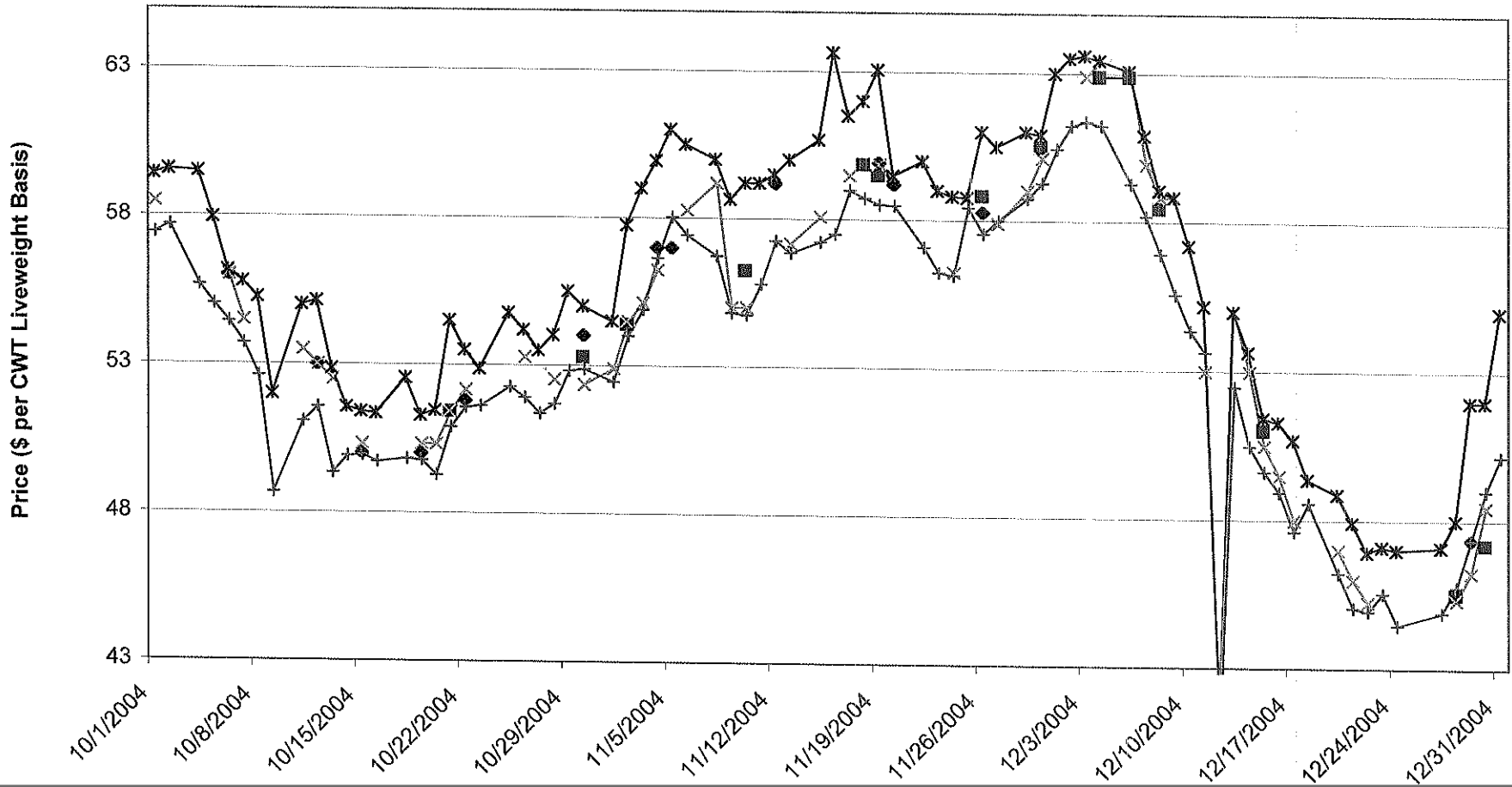


(b)(9)



Base Prices Paid to

(b)(4)



(b)(4)

Base Prices Paid to

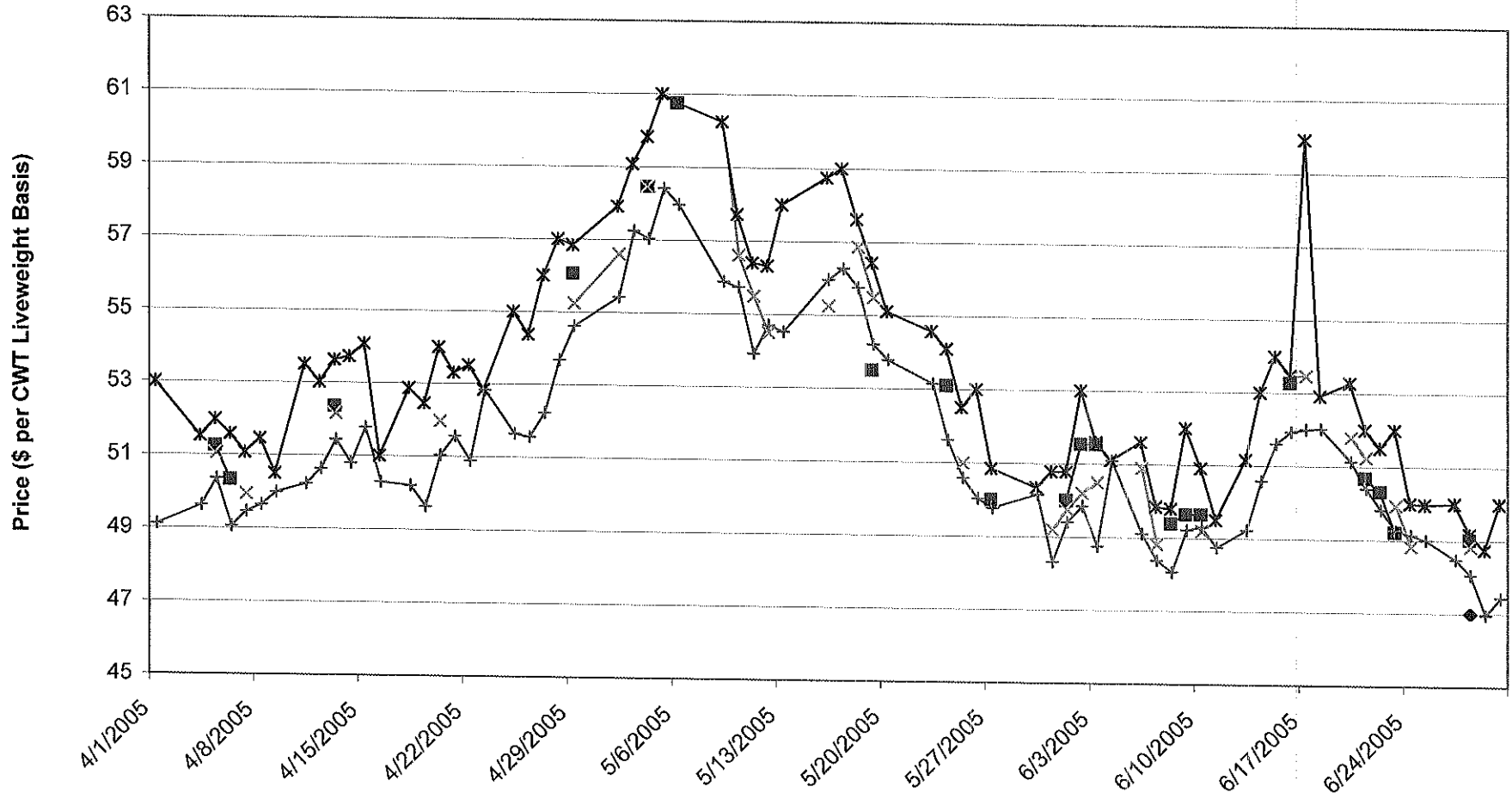
(b)(4)



(b)(4)

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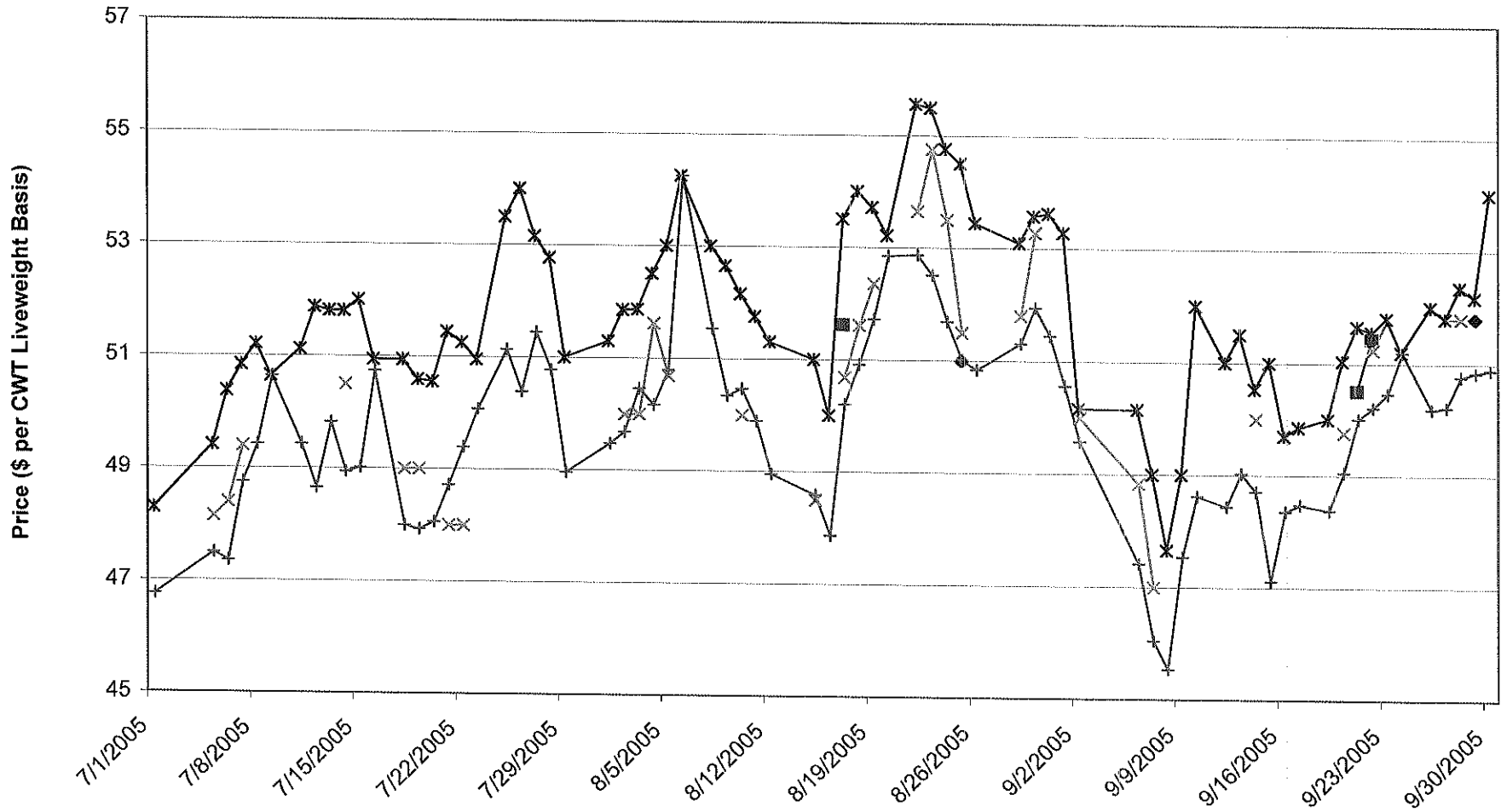
(b)(6)



(b)(6)

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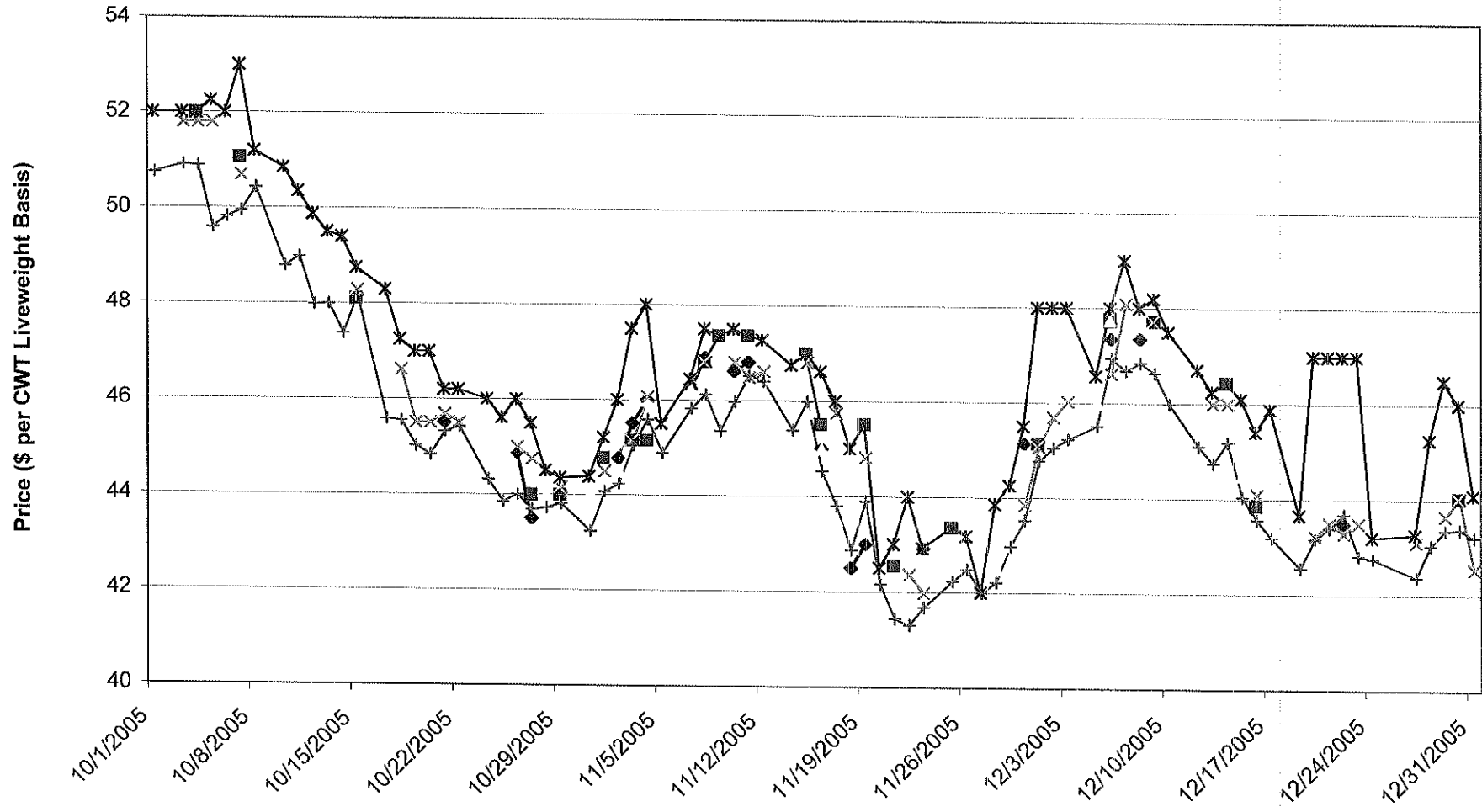
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(b)(4)

Base Prices Paid to

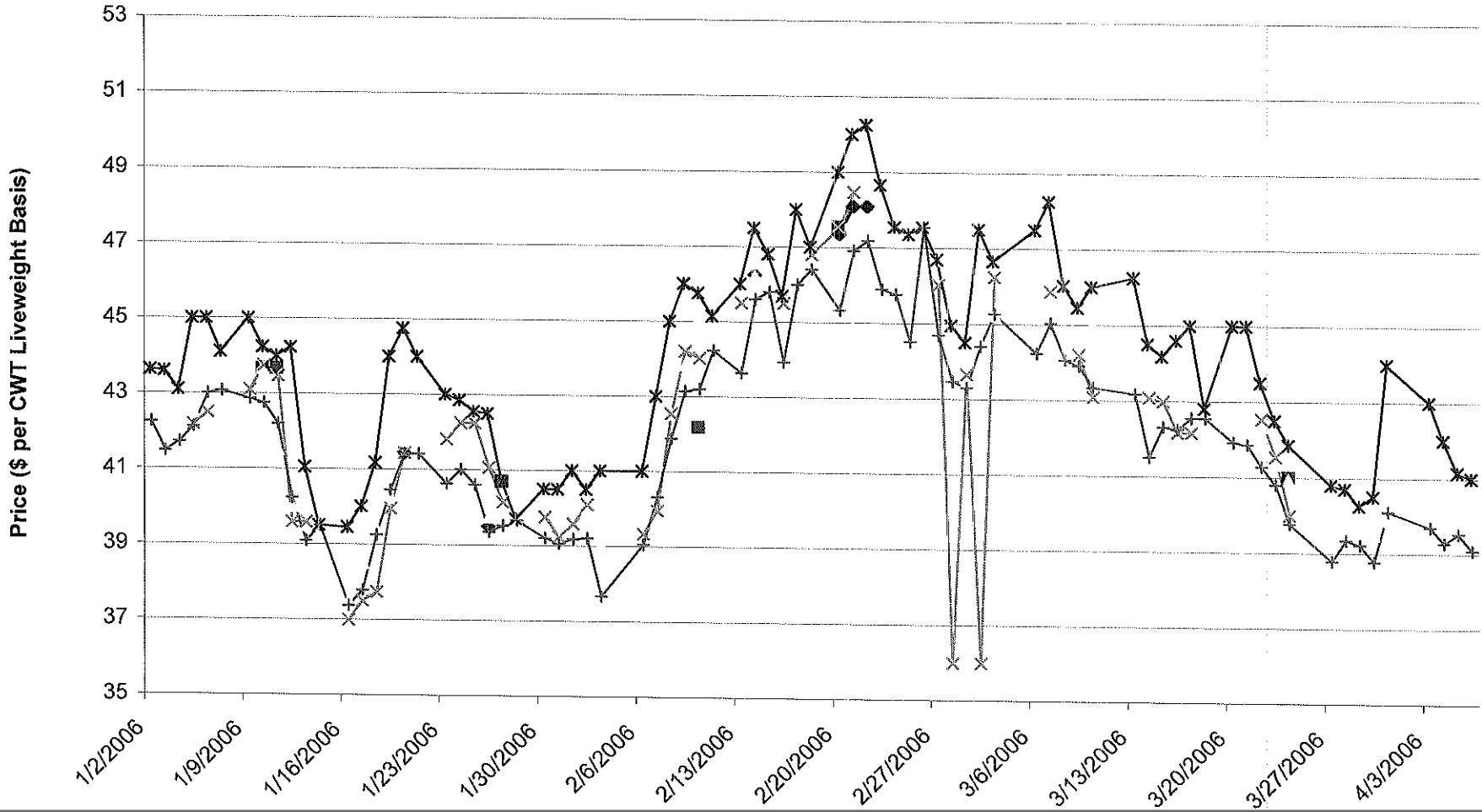
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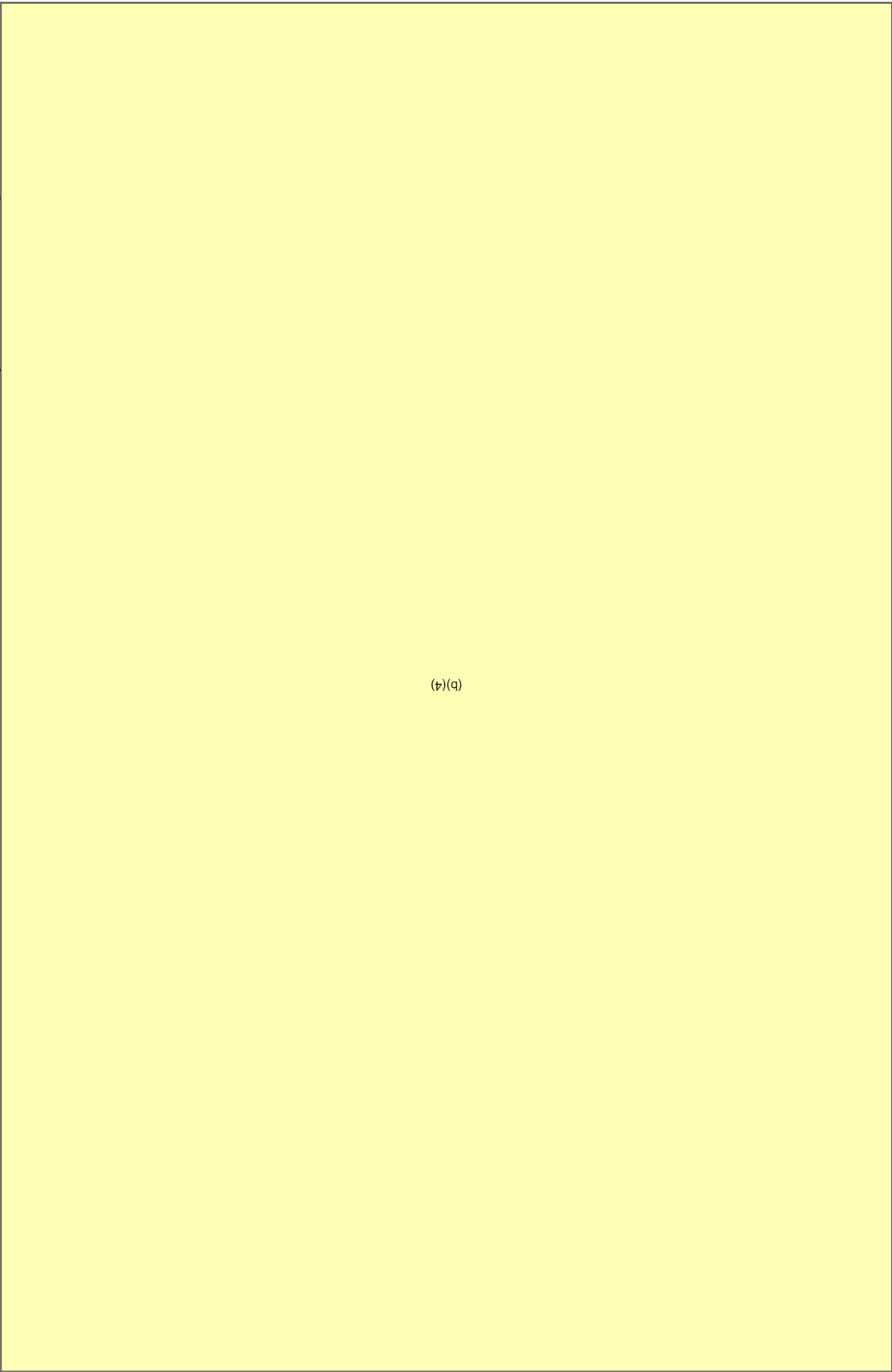
(b)(4)

Base Prices Paid to

(b)(4)



(b)(4)



(b)(4)



United States  
Department of  
Agriculture

Grain Inspection,  
Packers and Stockyards  
Administration

Stop 3601  
1400 Independence Ave., SW  
Washington, DC 20250-3601

**FILE COPY**

MAR 14 2006

**TO:** Lloyd C. Day  
Administrator  
Agricultural Marketing Service

**FROM:** James Link  
Administrator  
Grain Inspection, Packers and Stockyards Administration

**SUBJECT:** Agricultural Marketing Service (AMS) Classification of Hog Transactions  
Between (b)(4)

The Packers and Stockyards Program (P&SP) recently requested and received from (b)(4)

(b)(4) information regarding (b)(4)

(b)(4)  
e  
on  
(b)(4)

(b)(4)

It is P&SP's understanding that AMS is currently reporting the (b)(4) purchases of (b)(4) (b)(4) hogs as negotiated purchases rather than as packer-owned purchases.

(b)(5)

(b)(5) P&SP respectfully recommends that (b)(4) purchases of (b)(4) hogs be classified as packer-owned transactions for AMS reporting purposes. If you have any questions or concerns about this request, or any question or comments, please contact Gary McBryde, Director of P&SP's Industry Analysis Division, at (202) 720-5552.

(b)(4)



Estimated Daily U.S. Slaughter Capacity

| Company                        | Plant               | Fall 2001       |           | Spring 2002    |           | Fall 2002      |           | Spring 2003    |           | Fall 2003      |           | Fall 2004      |           |        |
|--------------------------------|---------------------|-----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|--------|
|                                |                     | Plant           | Co. Total | Plant          | Co. Total | Plant          | Co. Total | Plant          | Co. Total | Plant          | Co. Total | Plant          | Co. Total |        |
| 1 Smithfield<br>Smithfield, VA | Tar Heel, NC        | 32,000          |           | 32,000         |           | 32,000         |           | 32,000         |           | 32,000         |           | 32,000         |           |        |
|                                |                     |                 | 9,500     |                | 9,500     |                | 9,500     |                | 9,500     |                | 9,000     |                |           |        |
|                                | Marrell<br>Farmland | Gwaltney, VA    | 8,800     |                | 8,800     |                | 8,800     |                | 8,800     |                | 8,800     |                | 10,000    |        |
|                                |                     | Sioux Falls, SD | 15,000    |                | 15,000    |                | 15,000    |                | 15,000    |                | 15,000    |                | 17,000    |        |
|                                |                     | Sioux City, IA  | 15,000    | 80,300         | 15,000    | 80,300         | 15,000    | 80,300         | 15,000    | 80,300         | 15,000    | 80,300         | 14,500    | 10,400 |
|                                |                     | Crete, NE       | 10,000    |                | 10,000    |                | 10,000    |                | 10,000    |                | 10,200    |                | 9,200     |        |
| Monmouth, IA                   | 7,500               |                 | 7,500     |                | 7,500     |                | 7,500     |                | 7,500     |                | 8,000     |                |           |        |
| 2 Tyson Foods (BP)             | Waterloo, IA        | 19,000          |           | 19,000         |           | 19,000         |           | 19,000         |           | 19,000         | 29,600    | 10,200         | 112,300   |        |
|                                | Logansport, IN      | 14,000          |           | 14,000         |           | 14,000         |           | 14,000         |           | 14,000         |           | 19,200         |           |        |
|                                | Storm Lake, IA      | 14,000          |           | 14,000         |           | 14,000         |           | 14,000         |           | 14,000         |           | 14,500         |           |        |
|                                | Col. Junction, IA   | 9,800           |           | 9,800          |           | 9,800          |           | 9,800          |           | 9,800          |           | 14,500         |           |        |
|                                | Madison, NE         | 7,500           |           | 7,500          |           | 7,500          |           | 7,500          |           | 7,500          |           | 9,800          |           |        |
|                                | Perry, IA           | 6,700           | 71,000    | 6,700          | 71,000    | 6,700          | 71,000    | 6,700          | 71,000    | 6,700          | 71,000    | 7,500          | 72,300    |        |
| 3 Swift                        | Worthington, MN     | 17,000          |           | 17,000         |           | 17,000         |           | 17,000         |           | 17,000         |           | 17,500         |           |        |
|                                | Marshalltown, IA    | 17,500          |           | 17,500         |           | 17,500         |           | 17,500         |           | 17,500         |           | 18,500         |           |        |
|                                | Louisville, KY      | 8,500           | 43,000    | 8,500          | 43,000    | 8,500          | 43,000    | 8,500          | 43,000    | 10,000         | 44,500    | 10,000         | 46,000    |        |
| Excel                          | Beardstown, IL      | 16,000          |           | 16,000         |           | 16,000         |           | 16,000         |           | 16,000         |           | 18,000         |           |        |
|                                | Ottumwa, IA         | 16,000          |           | 16,000         |           | 16,000         |           | 16,000         |           | 16,000         | 32,000    | 18,000         | 36,000    |        |
| 5 Horne                        | Austin, MN          | 17,000          |           | 17,000         |           | 17,000         |           | 17,000         |           | 17,000         |           | 18,000         |           |        |
|                                | Freemont, NE        | 9,000           |           | 9,000          |           | 9,000          |           | 9,000          |           | 9,000          | 26,000    | 8,800          | 26,800    |        |
| 6 Prem's Srd                   | Milan, MO           | 7,100           |           | 7,100          |           | 7,100          |           | 7,100          |           | 7,100          |           | 7,300          |           |        |
|                                | Clinton, NC         | 6,500           | 13,600    | 10,000         | 17,100    | 10,000         | 17,100    | 10,000         | 17,100    | 10,000         | 17,100    | 10,000         | 17,300    |        |
| 7 Seaboard                     | Guymon, OK          | 16,000          | 16,000    | 16,000         | 16,000    | 16,000         | 16,000    | 16,000         | 16,000    | 16,000         | 16,000    | 16,000         | 16,000    |        |
| 8 Indiana Pack                 | Delphi, IN          | 12,000          | 12,000    | 12,000         | 12,000    | 12,000         | 12,000    | 12,000         | 12,000    | 12,000         | 12,000    | 12,500         | 12,500    |        |
| 9 Hatfield                     | Hatfield, PA        | 7,800           | 7,800     | 7,800          | 7,800     | 7,800          | 7,800     | 7,800          | 7,800     | 7,800          | 7,800     | 10,200         | 10,200    |        |
| 10 Sara Lee                    | West Point, MS      | 6,500           |           | 6,500          |           | 6,500          |           | 6,500          |           | 6,500          |           | 6,200          |           |        |
|                                | Newburn, TN         | 2,500           | 9,000     | 2,500          | 9,000     | 2,500          | 9,000     | 2,500          | 9,000     | 2,500          | 9,000     | 2,600          | 8,800     |        |
| 11 Cloudberry                  | Vernon, CA          | 6,800           | 6,800     | 6,800          | 6,800     | 6,800          | 6,800     | 6,800          | 6,800     | 6,800          | 6,800     | 7,300          | 7,300     |        |
| 12 PH Smith                    | Sandusky, OH        | 4,200           | 4,200     | 4,200          | 4,200     | 4,200          | 4,200     | 4,200          | 4,200     | 4,200          | 4,200     | 4,200          | 4,200     |        |
| 13 Meadowbrook Farms           | Rantoul, IL         |                 |           |                |           |                |           |                |           |                |           | 4,000          | 4,000     |        |
| 14 Sioux Prime                 | Sioux Center, IA    | 2,900           | 2,900     | 2,900          | 2,900     | 2,900          | 2,900     | 2,900          | 2,900     | 2,900          | 2,900     | 3,500          | 3,500     |        |
| 15 Greenwood                   | Greenwood, SC       | 3,000           | 3,000     | 3,000          | 3,000     | 3,000          | 3,000     | 3,000          | 3,000     | 3,000          | 3,000     | 3,000          | 3,000     |        |
| 16 Johnsonville                | Watertown, WI       | 550             |           | 550            |           | 550            |           | 550            |           | 550            |           | 600            |           |        |
|                                | Momence, IL         | 1,250           | 1,800     | 1,250          | 1,800     | 1,250          | 1,800     | 1,250          | 1,800     | 1,250          | 1,800     | 1,350          | 370,200   |        |
| 17 Oldham's Sausage            | Holtan, KS          |                 |           |                |           |                |           |                |           |                |           | 600            | 2,950     |        |
| 18 Pine Ridge Farms            | Des Moines, IA      | 6,000           | 6,000     | 6,000          | 6,000     | 6,000          | 6,000     | 6,000          | 6,000     | 6,000          | 6,000     | 2,500          | 2,500     |        |
| 19 Pork King Packing           | Marengo, IL         |                 |           |                |           |                |           |                |           |                |           | 2,000          | 2,000     |        |
| 20 Fisher Ham and Meats        | Spring, TX          |                 |           |                |           |                |           |                |           |                |           | 1,500          |           |        |
|                                | Navasota, TX        |                 |           |                |           |                |           |                |           |                |           | 500            | 2,000     |        |
| 21 USA Pork Products           | Hazellton, PA       |                 |           |                |           |                |           |                |           |                |           | 2,000          | 2,000     |        |
| 22 Abigail Foods               | Curtiss, WI         | 700             | 700       | 700            | 700       | 700            | 700       | 700            | 700       | 700            | 700       | 1,700          | 1,700     |        |
| 23 Spectrum Meats              | Mount Morris, IL    |                 |           |                |           |                |           |                |           |                |           | 1,600          | 1,600     |        |
| 24 Yosemite Meat               | Modesto, CA         | 1,200           | 1,200     | 1,200          | 1,200     | 1,200          | 1,200     | 1,200          | 1,200     | 1,200          | 1,200     | 1,500          | 1,500     |        |
| 25 Kirby's                     | Souderton, PA       | 800             | 800       | 800            | 800       | 800            | 800       | 800            | 800       | 800            | 800       | 1,400          | 1,400     |        |
| 26 Win-Lee-Ron                 | Mentone, IN         |                 |           |                |           |                |           |                |           |                |           | 1,100          | 1,100     |        |
| 27 Bob Evans Farms             | Bidwell, OH         | 150             |           | 150            |           | 150            |           | 150            |           | 150            |           | 200            |           |        |
|                                | Xenia, OH           | 300             |           | 300            |           | 300            |           | 300            |           | 300            |           | 300            |           |        |
|                                | Hillsdale, MI       | 500             |           | 500            |           | 500            |           | 500            |           | 500            |           | 300            |           |        |
|                                | Galva, IL           | 500             | 1,450     | 500            | 1,450     | 500            | 1,450     | 500            | 1,450     | 500            | 1,450     | 300            | 1,400     |        |
| 28 Odor's                      | Little Rock, AR     | 750             | 750       | 750            | 750       | 750            | 750       | 750            | 750       | 750            | 750       | 1,000          | 1,000     |        |
| 29 Martin's Pork Products      | Falcon, NC          | 600             |           | 600            |           | 600            |           | 600            |           | 600            |           | 1,000          | 1,000     |        |
| 30 Cloverdale Foods            | Minot, ND           | 920             | 920       | 920            | 920       | 920            | 920       | 920            | 920       | 920            | 920       | 920            | 920       |        |
| 31 Verschoor Meats             | Sioux City, IA      |                 |           |                |           |                |           |                |           |                |           | 800            | 800       |        |
| 32 Peoria Packing              | Chicago, IL         |                 |           |                |           |                |           |                |           |                |           | 750            | 750       |        |
| 33 The Pork Company            | Warsaw, NC          |                 |           |                |           |                |           |                |           |                |           | 750            | 750       |        |
| 34 Independent Meat            | Twin Falls, ID      | 650             | 650       | 650            | 650       | 650            | 650       | 650            | 650       | 650            | 650       | 650            | 650       |        |
| 35 Masam Meat Co.              | Klamath Falls, OR   | 300             | 300       | 300            | 300       | 300            | 300       | 300            | 300       | 300            | 300       | 650            | 650       |        |
| 36 Owens Sausage               | Richardson, TX      | 800             | 800       | 800            | 800       | 800            | 800       | 800            | 800       | 800            | 800       | 600            | 600       |        |
| 37 Dekalb Co Packing           | De Kalb, IL         |                 |           |                |           |                |           |                |           |                |           | 500            | 500       |        |
| 38 Calman                      | Peoria, IL          |                 |           |                |           |                |           |                |           |                |           | 425            | 425       |        |
| 39 FBI Purnell Sausage         | Simonsville, KY     |                 |           |                |           |                |           |                |           |                |           | 400            | 400       |        |
| 40 J.C. Potter                 | Durant, OK          |                 |           |                |           |                |           |                |           |                |           | 400            | 400       |        |
| 41 Williams Sausage Co.        | Union City, KY      |                 |           |                |           |                |           |                |           |                |           | 400            | 400       |        |
| 42 Carleton Packing            | Carleton, OR        | 250             | 250       | 250            | 250       | 250            | 250       | 250            | 250       | 250            | 250       | 375            | 375       |        |
| 43 Lowell Packing              | Fitzgerald, GA      | 350             | 350       | 350            | 350       | 350            | 350       | 350            | 350       | 350            | 350       | 350            | 350       |        |
| 44 Parks Family Meats          | Warsaw, NC          |                 |           |                |           |                |           |                |           |                |           | 300            |           |        |
| 45 Dean Sausage                | Atalla, AL          |                 |           |                |           |                |           |                |           |                |           | 225            | 225       |        |
| 46 Morris Meat Packing         | Morris, IL          |                 |           |                |           |                |           |                |           |                |           | 200            | 200       |        |
| 47 Wampler's Sausage           | Lenoir City, TN     |                 |           |                |           |                |           |                |           |                |           | 200            | 200       |        |
| 48 Southern Quality Meats      | Pontotoc, MS        |                 |           |                |           |                |           |                |           |                |           | 130            | 130       |        |
| 49 Gunhoe Sausage              | Goode, VA           |                 |           |                |           |                |           |                |           |                |           | 100            | 100       |        |
| <b>TOTAL CAPACITY</b>          |                     | <b>381,120</b>  |           | <b>381,020</b> |           | <b>381,020</b> |           | <b>377,420</b> |           | <b>383,020</b> |           | <b>410,775</b> |           |        |

SOURCE: Pork Checkoff

09:47 Tuesday, January 23, 2007

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

## Analysis of Variance

| Source          | DF   | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|------|----------------|-------------|---------|--------|
| Model           | 16   | 65102          | 4068.84725  | 374.50  | <.0001 |
| Error           | 2874 | 31225          | 10.86478    |         |        |
| Corrected Total | 2890 | 96327          |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.29618  | R-Square | 0.6758 |
| Dependent Mean | 51.27481 | Adj R-Sq | 0.6740 |
| Coeff Var      | 6.42845  |          |        |

## Parameter Estimates

| Variable         | Label   | DF | Parameter Estimate | Standard Error | t Value |
|------------------|---|----|--------------------|----------------|---------|
| Intercept        | Intercept                                     | 1  | 54.04297           | 1.09610        | 49.30   |
| Head_Received    | Head received per lot                         | 1  | 0.00086423         | 0.00176        | 0.49    |
| Avg_backfat      | Average backfat per lot                       | 1  | -0.18009           | 0.73704        | -0.24   |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | -0.12500           | 0.30058        | -0.42   |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | 0.00771            | 0.00416        | 1.85    |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | -1.30948           | 0.31032        | -4.22   |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | -0.87574           | 0.30557        | -2.87   |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | 0.17939            | 0.32856        | 0.55    |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | -2.94716           | 0.26685        | -11.04  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | 4.54458            | 0.32508        | 13.98   |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | 2.19720            | 0.30017        | 7.32    |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | 3.35454            | 0.29792        | 11.26   |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | 3.46494            | 0.32405        | 10.69   |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | 3.40946            | 0.30081        | 11.33   |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | 1.14779            | 0.30338        | 3.78    |

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

## Parameter Estimates

| Variable | Label                                       | DF | Parameter Estimate | Standard Error | t Value |
|----------|---|----|--------------------|----------------|---------|
| IV_S11   | Dummy Var; 1 if Nov 0<br>otherwise          | 1  | 1.06667            | 0.31161        | 3.42    |
| Trend    | Trend Var from 0 to 24 in<br>order of month | 1  | -0.50162           | 0.00980        | -51.16  |

## Parameter Estimates

| Variable         | Label   | DF | Pr >  t |
|------------------|---|----|---------|
| Intercept        | Intercept                                     | 1  | <.0001  |
| Head_Received    | Head received per lot                         | 1  | 0.6235  |
| Avg_backfat      | Average backfat per lot                       | 1  | 0.8070  |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | 0.6775  |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | 0.0644  |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | <.0001  |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | 0.0042  |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | 0.5851  |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | <.0001  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | <.0001  |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | <.0001  |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | <.0001  |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | <.0001  |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | <.0001  |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | 0.0002  |
| IV_S11           | Dummy Var; 1 if Nov 0<br>otherwise            | 1  | 0.0006  |
| Trend            | Trend Var from 0 to 24 in<br>order of month   | 1  | <.0001  |

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

## Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 16    | 1031463        | 64466       | 5638.21 | <.0001 |
| Error           | 50777 | 580576         | 11.43385    |         |        |
| Corrected Total | 50793 | 1612039        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.38140  | R-Square | 0.6398 |
| Dependent Mean | 50.18543 | Adj R-Sq | 0.6397 |
| Coeff Var      | 6.73781  |          |        |

## Parameter Estimates

| Variable         | Label   | DF | Parameter Estimate | Standard Error | t Value |
|------------------|---|----|--------------------|----------------|---------|
| Intercept        | Intercept                                     | 1  | 55.72387           | 0.29828        | 186.81  |
| Head_Received    | Head received per lot                         | 1  | 0.00261            | 0.00025002     | 10.44   |
| Avg_backfat      | Average backfat per lot                       | 1  | -0.16022           | 0.14907        | -1.07   |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | -0.35764           | 0.03108        | -11.51  |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | -0.00108           | 0.00114        | -0.95   |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | -0.40020           | 0.07317        | -5.47   |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | 0.14024            | 0.07445        | 1.88    |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | 0.53446            | 0.07238        | 7.38    |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | -2.34229           | 0.06892        | -33.99  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | 4.68409            | 0.07690        | 60.91   |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | 2.04994            | 0.07563        | 27.11   |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | 3.10513            | 0.07795        | 39.84   |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | 3.16994            | 0.07413        | 42.76   |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | 2.58867            | 0.07185        | 36.03   |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | 0.69558            | 0.07188        | 9.68    |

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

## Parameter Estimates

| Variable | Label                                    | DF | Parameter Estimate | Standard Error | t Value |
|----------|--|----|--------------------|----------------|---------|
| IV_S11   | Dummy Var; 1 if Nov 0 otherwise          | 1  | 1.26656            | 0.07153        | 17.71   |
| Trend    | Trend Var from 0 to 24 in order of month | 1  | -0.52233           | 0.00236        | -221.69 |

## Parameter Estimates

| Variable         | Label                                      | DF | Pr >  t |
|------------------|--|----|---------|
| Intercept        | Intercept                                  | 1  | <.0001  |
| Head_Received    | Head received per lot                      | 1  | <.0001  |
| Avg_backfat      | Average backfat per lot                    | 1  | 0.2825  |
| Negotiated_price | Binary Var; 1 negotiated price 0 otherwise | 1  | <.0001  |
| Tot_live_wgt_PH  | Total live weight per head                 | 1  | 0.3446  |
| IV_S1            | Dummy Var; 1 if Jan 0 otherwise            | 1  | <.0001  |
| IV_S2            | Dummy Var; 1 if Feb 0 otherwise            | 1  | 0.0596  |
| IV_S3            | Dummy Var; 1 if Mar 0 otherwise            | 1  | <.0001  |
| IV_S4            | Dummy Var; 1 if Apr 0 otherwise            | 1  | <.0001  |
| IV_S5            | Dummy Var; 1 if May 0 otherwise            | 1  | <.0001  |
| IV_S6            | Dummy Var; 1 if Jun 0 otherwise            | 1  | <.0001  |
| IV_S7            | Dummy Var; 1 if Jul 0 otherwise            | 1  | <.0001  |
| IV_S8            | Dummy Var; 1 if Aug 0 otherwise            | 1  | <.0001  |
| IV_S9            | Dummy Var; 1 if Sep 0 otherwise            | 1  | <.0001  |
| IV_S10           | Dummy Var; 1 if Oct 0 otherwise            | 1  | <.0001  |
| IV_S11           | Dummy Var; 1 if Nov 0 otherwise            | 1  | <.0001  |
| Trend            | Trend Var from 0 to 24 in order of month   | 1  | <.0001  |

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The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_price Base\_price

Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 16    | 497155         | 31072       | 2058.28 | <.0001 |
| Error           | 27797 | 419629         | 15.09620    |         |        |
| Corrected Total | 27813 | 916784         |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.88538  | R-Square | 0.5423 |
| Dependent Mean | 50.00061 | Adj R-Sq | 0.5420 |
| Coeff Var      | 7.77067  |          |        |

Parameter Estimates

| Variable         | Label   | DF | Parameter Estimate | Standard Error | t Value |
|------------------|---|----|--------------------|----------------|---------|
| Intercept        | Intercept                                     | 1  | 56.89775           | 0.43317        | 131.35  |
| Head_Received    | Head received per lot                         | 1  | 0.00158            | 0.00035107     | 4.49    |
| Avg_backfat      | Average backfat per lot                       | 1  | -2.61887           | 0.25992        | -10.08  |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | 0.59968            | 0.04979        | 12.04   |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | -0.00346           | 0.00172        | -2.01   |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | -0.71230           | 0.11426        | -6.23   |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | -0.28998           | 0.11428        | -2.54   |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | 0.03415            | 0.11500        | 0.30    |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | -2.26258           | 0.10723        | -21.10  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | 4.67242            | 0.12167        | 38.40   |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | 2.03088            | 0.11893        | 17.08   |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | 2.70459            | 0.11719        | 23.08   |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | 2.98712            | 0.11654        | 25.63   |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | 2.48921            | 0.11386        | 21.86   |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | 0.77910            | 0.11178        | 6.97    |
| IV_S11           | Dummy Var; 1 if Nov 0<br>otherwise            | 1  | 1.52166            | 0.11293        | 13.47   |

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The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_price Base\_price

Parameter Estimates

| Variable | Label                                    | DF | Parameter Estimate | Standard Error | t Value |
|----------|--|----|--------------------|----------------|---------|
| Trend    | Trend Var from 0 to 24 in order of month | 1  | -0.46754           | 0.00366        | -127.60 |

Parameter Estimates

| Variable         | Label   | DF | Pr >  t |
|------------------|---|----|---------|
| Intercept        | Intercept                                     | 1  | <.0001  |
| Head_Received    | Head received per lot                         | 1  | <.0001  |
| Avg_backfat      | Average backfat per lot                       | 1  | <.0001  |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | <.0001  |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | 0.0440  |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | <.0001  |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | 0.0112  |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | 0.7665  |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | <.0001  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | <.0001  |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | <.0001  |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | <.0001  |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | <.0001  |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | <.0001  |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | <.0001  |
| IV_S11           | Dummy Var; 1 if Nov 0<br>otherwise            | 1  | <.0001  |
| Trend            | Trend Var from 0 to 24 in order of month      | 1  | <.0001  |

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The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_price Base\_price

Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 16    | 282528         | 17658       | 1732.36 | <.0001 |
| Error           | 12880 | 131287         | 10.19305    |         |        |
| Corrected Total | 12896 | 413815         |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.19266  | R-Square | 0.6827 |
| Dependent Mean | 51.80522 | Adj R-Sq | 0.6823 |
| Coeff Var      | 6.16281  |          |        |

Parameter Estimates

| Variable         | Label   | DF | Parameter Estimate | Standard Error | t Value |
|------------------|---|----|--------------------|----------------|---------|
| Intercept        | Intercept                                     | 1  | 59.82606           | 0.47195        | 126.76  |
| Head_Received    | Head received per lot                         | 1  | 0.00093230         | 0.00073403     | 1.27    |
| Avg_backfat      | Average backfat per lot                       | 1  | -2.97717           | 0.43547        | -6.84   |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | -0.76038           | 0.08169        | -9.31   |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | -0.00063706        | 0.00195        | -0.33   |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | -0.08070           | 0.14039        | -0.57   |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | 0.06014            | 0.14433        | 0.42    |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | 0.37445            | 0.13782        | 2.72    |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | -2.10698           | 0.13198        | -15.96  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | 4.35581            | 0.14008        | 31.10   |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | 1.69490            | 0.13882        | 12.21   |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | 2.71289            | 0.14270        | 19.01   |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | 3.05733            | 0.14055        | 21.75   |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | 2.76952            | 0.13673        | 20.26   |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | 0.47436            | 0.13575        | 3.49    |
| IV_S11           | Dummy Var; 1 if Nov 0<br>otherwise            | 1  | 1.86533            | 0.13348        | 13.97   |



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The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_price Base\_price

Parameter Estimates

| Variable | Label                                    | DF | Parameter Estimate | Standard Error | t Value |
|----------|--|----|--------------------|----------------|---------|
| Trend    | Trend Var from 0 to 24 in order of month | 1  | -0.57868           | 0.00475        | -121.72 |

Parameter Estimates

| Variable         | Label   | DF | Pr >  t |
|------------------|---|----|---------|
| Intercept        | Intercept                                     | 1  | <.0001  |
| Head_Received    | Head received per lot                         | 1  | 0.2041  |
| Avg_backfat      | Average backfat per lot                       | 1  | <.0001  |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | <.0001  |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | 0.7445  |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | 0.5654  |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | 0.6769  |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | 0.0066  |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | <.0001  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | <.0001  |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | <.0001  |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | <.0001  |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | <.0001  |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | <.0001  |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | 0.0005  |
| IV_S11           | Dummy Var; 1 if Nov 0<br>otherwise            | 1  | <.0001  |
| Trend            | Trend Var from 0 to 24 in order of month      | 1  | <.0001  |

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

## Analysis of Variance

| Source          | DF   | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|------|----------------|-------------|---------|--------|
| Model           | 16   | 97639          | 6102.45716  | 622.43  | <.0001 |
| Error           | 5201 | 50992          | 9.80422     |         |        |
| Corrected Total | 5217 | 148631         |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.13117  | R-Square | 0.6569 |
| Dependent Mean | 51.86454 | Adj R-Sq | 0.6559 |
| Coeff Var      | 6.03721  |          |        |

## Parameter Estimates

| Variable         | Label   | DF | Parameter Estimate | Standard Error | t Value |
|------------------|---|----|--------------------|----------------|---------|
| Intercept        | Intercept                                     | 1  | 55.16591           | 0.73964        | 74.59   |
| Head_Received    | Head received per lot                         | 1  | 0.00118            | 0.00099889     | 1.18    |
| Avg_backfat      | Average backfat per lot                       | 1  | -1.55631           | 0.53933        | -2.89   |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | 0.13404            | 0.10830        | 1.24    |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | 0.00626            | 0.00279        | 2.25    |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | 0.71478            | 0.23494        | 3.04    |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | 0.68246            | 0.24539        | 2.78    |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | 0.96379            | 0.22978        | 4.19    |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | -2.60426           | 0.21932        | -11.87  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | 4.82595            | 0.22793        | 21.17   |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | 2.59829            | 0.21775        | 11.93   |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | 3.64168            | 0.22657        | 16.07   |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | 3.73016            | 0.21754        | 17.15   |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | 3.65657            | 0.22929        | 15.95   |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | 1.58321            | 0.23805        | 6.65    |
| IV_S11           | Dummy Var; 1 if Nov 0<br>otherwise            | 1  | 1.58656            | 0.24559        | 6.46    |

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The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_price Base\_price

Parameter Estimates

| Variable | Label                                    | DF | Parameter Estimate | Standard Error | t Value |
|----------|--|----|--------------------|----------------|---------|
| Trend    | Trend Var from 0 to 24 in order of month | 1  | -0.51607           | 0.00756        | -68.24  |

Parameter Estimates

| Variable         | Label   | DF | Pr >  t |
|------------------|---|----|---------|
| Intercept        | Intercept                                     | 1  | <.0001  |
| Head_Received    | Head received per lot                         | 1  | 0.2370  |
| Avg_backfat      | Average backfat per lot                       | 1  | 0.0039  |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | 0.2159  |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | 0.0246  |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | 0.0024  |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | 0.0054  |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | <.0001  |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | <.0001  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | <.0001  |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | <.0001  |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | <.0001  |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | <.0001  |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | <.0001  |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | <.0001  |
| IV_S11           | Dummy Var; 1 if Nov 0<br>otherwise            | 1  | <.0001  |
| Trend            | Trend Var from 0 to 24 in order of month      | 1  | <.0001  |

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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 16    | 808685         | 50543       | 3882.75 | <.0001 |
| Error           | 42899 | 558428         | 13.01728    |         |        |
| Corrected Total | 42915 | 1367113        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.60795  | R-Square | 0.5915 |
| Dependent Mean | 50.57811 | Adj R-Sq | 0.5914 |
| Coeff Var      | 7.13342  |          |        |

Parameter Estimates

| Variable         | Label   | DF | Parameter Estimate | Standard Error | t Value |
|------------------|---|----|--------------------|----------------|---------|
| Intercept        | Intercept                                     | 1  | 59.85254           | 0.33909        | 176.51  |
| Head_Received    | Head received per lot                         | 1  | -0.00068656        | 0.00016536     | -4.15   |
| Avg_backfat      | Average backfat per lot                       | 1  | -1.26202           | 0.17456        | -7.23   |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | -1.32496           | 0.04023        | -32.93  |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | -0.01123           | 0.00127        | -8.81   |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | -0.54781           | 0.08672        | -6.32   |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | -0.28809           | 0.08750        | -3.29   |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | 0.25918            | 0.08650        | 3.00    |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | -2.98875           | 0.08073        | -37.02  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | 3.88130            | 0.09060        | 42.84   |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | 1.77651            | 0.08758        | 20.28   |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | 2.59457            | 0.08933        | 29.05   |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | 2.36412            | 0.08694        | 27.19   |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | 1.95452            | 0.08464        | 23.09   |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | 0.69164            | 0.08354        | 8.28    |
| IV_S11           | Dummy Var; 1 if Nov 0<br>otherwise            | 1  | 1.49260            | 0.08428        | 17.71   |

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

## Parameter Estimates

| Variable | Label                                    | DF | Parameter Estimate | Standard Error | t Value |
|----------|--|----|--------------------|----------------|---------|
| Trend    | Trend Var from 0 to 24 in order of month | 1  | -0.49615           | 0.00277        | -179.35 |

## Parameter Estimates

| Variable         | Label   | DF | Pr >  t |
|------------------|---|----|---------|
| Intercept        | Intercept                                     | 1  | <.0001  |
| Head_Received    | Head received per lot                         | 1  | <.0001  |
| Avg_backfat      | Average backfat per lot                       | 1  | <.0001  |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise | 1  | <.0001  |
| Tot_live_wgt_PH  | Total live weight per head                    | 1  | <.0001  |
| IV_S1            | Dummy Var; 1 if Jan 0<br>otherwise            | 1  | <.0001  |
| IV_S2            | Dummy Var; 1 if Feb 0<br>otherwise            | 1  | 0.0010  |
| IV_S3            | Dummy Var; 1 if Mar 0<br>otherwise            | 1  | 0.0027  |
| IV_S4            | Dummy Var; 1 if Apr 0<br>otherwise            | 1  | <.0001  |
| IV_S5            | Dummy Var; 1 if May 0<br>otherwise            | 1  | <.0001  |
| IV_S6            | Dummy Var; 1 if Jun 0<br>otherwise            | 1  | <.0001  |
| IV_S7            | Dummy Var; 1 if Jul 0<br>otherwise            | 1  | <.0001  |
| IV_S8            | Dummy Var; 1 if Aug 0<br>otherwise            | 1  | <.0001  |
| IV_S9            | Dummy Var; 1 if Sep 0<br>otherwise            | 1  | <.0001  |
| IV_S10           | Dummy Var; 1 if Oct 0<br>otherwise            | 1  | <.0001  |
| IV_S11           | Dummy Var; 1 if Nov 0<br>otherwise            | 1  | <.0001  |
| Trend            | Trend Var from 0 to 24 in order of month      | 1  | <.0001  |

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_Price Base price

## Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 23    | 1123180        | 48834       | 3835.57 | <.0001 |
| Error           | 62247 | 792521         | 12.73187    |         |        |
| Corrected Total | 62270 | 1915701        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.56818  | R-Square | 0.5863 |
| Dependent Mean | 50.03562 | Adj R-Sq | 0.5861 |
| Coeff Var      | 7.13127  |          |        |

## Parameter Estimates

| Variable         | Label   | DF | Parameter Estimate | Standard Error | t Value |
|------------------|---|----|--------------------|----------------|---------|
| Intercept        | Intercept                                       | 1  | 42.81784           | 0.20608        | 207.77  |
| Head_Received    | Head received per lot                           | 1  | 0.00306            | 0.00022082     | 13.87   |
| Avg_Backfat      | Average backfat per lot                         | 1  | 0.14233            | 0.00444        | 32.03   |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise   | 1  | 0.04028            | 0.03309        | 1.22    |
| Shrink           | 1 minus head Killed divided by<br>head recieved | 1  | -0.83871           | 0.31793        | -2.64   |
| PLG              | Price length, purchase date<br>minus kill date  | 1  | -0.25056           | 0.01504        | -16.66  |
| Tot_live_wgt_PH  | Total live weight per head                      | 1  | -0.03043           | 0.00056687     | -53.67  |
| Truck_D          | Trucking deduction                              | 1  | -0.02921           | 0.00566        | -5.16   |
| NPB_D            | NPB deduction                                   | 1  | 0.36255            | 0.01220        | 29.73   |
| Ins_D            | Insurance deduction                             | 1  | -0.05024           | 0.01651        | -3.04   |
| Other_D          | Other deduction                                 | 1  | 0.00202            | 0.00589        | 0.34    |
| Yr_2004          |   | 1  | 12.77160           | 0.06402        | 199.51  |
| Yr_2005          |   | 1  | 7.69116            | 0.05456        | 140.96  |
| IV_S1            | Dummy Var; 1 if Jan 0 else                      | 1  | 4.93275            | 0.07846        | 62.87   |
| IV_S2            | Dummy Var; 1 if Feb 0 else                      | 1  | 5.49376            | 0.07626        | 72.04   |
| IV_S3            | Dummy Var; 1 if Mar 0 else                      | 1  | 5.15059            | 0.07576        | 67.99   |
| IV_S4            | Dummy Var; 1 if Apr 0 else                      | 1  | 3.31485            | 0.07288        | 45.48   |
| IV_S5            | Dummy Var; 1 if May 0 else                      | 1  | 7.17156            | 0.07255        | 98.85   |
| IV_S6            | Dummy Var; 1 if Jun 0 else                      | 1  | 4.01234            | 0.07027        | 57.10   |
| IV_S7            | Dummy Var; 1 if Jul 0 else                      | 1  | 4.46274            | 0.07043        | 63.37   |
| IV_S8            | Dummy Var; 1 if Aug 0 else                      | 1  | 4.39326            | 0.06857        | 64.07   |
| IV_S9            | Dummy Var; 1 if Sep 0 else                      | 1  | 3.69241            | 0.06726        | 54.90   |
| IV_S10           | Dummy Var; 1 if Oct 0 else                      | 1  | 1.09378            | 0.06779        | 16.13   |
| IV_S11           | Dummy Var; 1 if Nov 0 else                      | 1  | 1.78476            | 0.06833        | 26.12   |

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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_Price Base price

## Parameter Estimates

| Variable         | Label   | DF | Pr >  t |
|------------------|---|----|---------|
| Intercept        | Intercept                                       | 1  | <.0001  |
| Head_Received    | Head received per lot                           | 1  | <.0001  |
| Avg_Backfat      | Average backfat per lot                         | 1  | <.0001  |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise   | 1  | 0.2234  |
| Shrink           | 1 minus head Killed divided by<br>head recieved | 1  | 0.0083  |
| PLG              | Price length, purchase date<br>minus kill date  | 1  | <.0001  |
| Tot_live_wgt_PH  | Total live weight per head                      | 1  | <.0001  |
| Truck_D          | Trucking deduction                              | 1  | <.0001  |
| NPB_D            | NPB deduction                                   | 1  | <.0001  |
| Ins_D            | Insurance deduction                             | 1  | 0.0023  |
| Other_D          | Other deduction                                 | 1  | 0.7311  |
| Yr_2004          |   | 1  | <.0001  |
| Yr_2005          |   | 1  | <.0001  |
| IV_S1            | Dummy Var; 1 if Jan 0 else                      | 1  | <.0001  |
| IV_S2            | Dummy Var; 1 if Feb 0 else                      | 1  | <.0001  |
| IV_S3            | Dummy Var; 1 if Mar 0 else                      | 1  | <.0001  |
| IV_S4            | Dummy Var; 1 if Apr 0 else                      | 1  | <.0001  |
| IV_S5            | Dummy Var; 1 if May 0 else                      | 1  | <.0001  |
| IV_S6            | Dummy Var; 1 if Jun 0 else                      | 1  | <.0001  |
| IV_S7            | Dummy Var; 1 if Jul 0 else                      | 1  | <.0001  |
| IV_S8            | Dummy Var; 1 if Aug 0 else                      | 1  | <.0001  |
| IV_S9            | Dummy Var; 1 if Sep 0 else                      | 1  | <.0001  |
| IV_S10           | Dummy Var; 1 if Oct 0 else                      | 1  | <.0001  |
| IV_S11           | Dummy Var; 1 if Nov 0 else                      | 1  | <.0001  |

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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_Price Base price

## Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 23    | 260590         | 11330       | 1479.54 | <.0001 |
| Error           | 10363 | 79358          | 7.65780     |         |        |
| Corrected Total | 10386 | 339948         |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 2.76727  | R-Square | 0.7666 |
| Dependent Mean | 52.24120 | Adj R-Sq | 0.7660 |
| Coeff Var      | 5.29711  |          |        |

## Parameter Estimates

| Variable         | Label   | DF | Parameter Estimate | Standard Error | t Value |
|------------------|---|----|--------------------|----------------|---------|
| Intercept        | Intercept                                       | 1  | 36.49049           | 0.48049        | 75.94   |
| Head_Received    | Head received per lot                           | 1  | 0.00138            | 0.00083094     | 1.66    |
| Avg_Backfat      | Average backfat per lot                         | 1  | 0.04598            | 0.01464        | 3.14    |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise   | 1  | -0.64700           | 0.09087        | -7.12   |
| Shrink           | 1 minus head Killed divided by<br>head recieved | 1  | -0.53851           | 0.61453        | -0.88   |
| PLG              | Price length, purchase date<br>minus kill date  | 1  | -0.08945           | 0.04388        | -2.04   |
| Tot_live_wgt_PH  | Total live weight per head                      | 1  | -0.01041           | 0.00166        | -6.25   |
| Truck_D          | Trucking deduction                              | 1  | -0.47502           | 1.32025        | -0.36   |
| NPB_D            | NPB deduction                                   | 1  | 0.22490            | 0.04027        | 5.58    |
| Ins_D            | Insurance deduction                             | 1  | -2.56129           | 2.21924        | -1.15   |
| Other_D          | Other deduction                                 | 1  | -1.83761           | 0.92203        | -1.99   |
| Yr_2004          |   | 1  | 17.27740           | 0.13884        | 124.45  |
| Yr_2005          |   | 1  | 10.81995           | 0.12381        | 87.39   |
| IV_S1            | Dummy Var; 1 if Jan 0 else                      | 1  | 7.99821            | 0.15465        | 51.72   |
| IV_S2            | Dummy Var; 1 if Feb 0 else                      | 1  | 6.67003            | 0.15262        | 43.70   |
| IV_S3            | Dummy Var; 1 if Mar 0 else                      | 1  | 6.24552            | 0.15310        | 40.80   |
| IV_S4            | Dummy Var; 1 if Apr 0 else                      | 1  | 4.60112            | 0.13943        | 33.00   |
| IV_S5            | Dummy Var; 1 if May 0 else                      | 1  | 8.35991            | 0.12910        | 64.76   |
| IV_S6            | Dummy Var; 1 if Jun 0 else                      | 1  | 5.86766            | 0.12228        | 47.98   |
| IV_S7            | Dummy Var; 1 if Jul 0 else                      | 1  | 5.68446            | 0.13239        | 42.94   |
| IV_S8            | Dummy Var; 1 if Aug 0 else                      | 1  | 5.05516            | 0.13202        | 38.29   |
| IV_S9            | Dummy Var; 1 if Sep 0 else                      | 1  | 4.58971            | 0.13163        | 34.87   |
| IV_S10           | Dummy Var; 1 if Oct 0 else                      | 1  | 1.79608            | 0.12871        | 13.95   |
| IV_S11           | Dummy Var; 1 if Nov 0 else                      | 1  | 2.33361            | 0.12620        | 18.49   |



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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_Price Base price

## Parameter Estimates

| Variable         | Label   | DF | Pr >  t |
|------------------|---|----|---------|
| Intercept        | Intercept                                       | 1  | <.0001  |
| Head_Received    | Head received per lot                           | 1  | 0.0974  |
| Avg_Backfat      | Average backfat per lot                         | 1  | 0.0017  |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise   | 1  | <.0001  |
| Shrink           | 1 minus head Killed divided by<br>head recieved | 1  | 0.3809  |
| PLG              | Price length, purchase date<br>minus kill date  | 1  | 0.0415  |
| Tot_live_wgt_PH  | Total live weight per head                      | 1  | <.0001  |
| Truck_D          | Trucking deduction                              | 1  | 0.7190  |
| NPB_D            | NPB deduction                                   | 1  | <.0001  |
| Ins_D            | Insurance deduction                             | 1  | 0.2485  |
| Other_D          | Other deduction                                 | 1  | 0.0463  |
| Yr_2004          |   | 1  | <.0001  |
| Yr_2005          |   | 1  | <.0001  |
| IV_S1            | Dummy Var; 1 if Jan 0 else                      | 1  | <.0001  |
| IV_S2            | Dummy Var; 1 if Feb 0 else                      | 1  | <.0001  |
| IV_S3            | Dummy Var; 1 if Mar 0 else                      | 1  | <.0001  |
| IV_S4            | Dummy Var; 1 if Apr 0 else                      | 1  | <.0001  |
| IV_S5            | Dummy Var; 1 if May 0 else                      | 1  | <.0001  |
| IV_S6            | Dummy Var; 1 if Jun 0 else                      | 1  | <.0001  |
| IV_S7            | Dummy Var; 1 if Jul 0 else                      | 1  | <.0001  |
| IV_S8            | Dummy Var; 1 if Aug 0 else                      | 1  | <.0001  |
| IV_S9            | Dummy Var; 1 if Sep 0 else                      | 1  | <.0001  |
| IV_S10           | Dummy Var; 1 if Oct 0 else                      | 1  | <.0001  |
| IV_S11           | Dummy Var; 1 if Nov 0 else                      | 1  | <.0001  |

2007

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_Price Base price

## Analysis of Variance

| Source          | DF   | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|------|----------------|-------------|---------|--------|
| Model           | 23   | 229876         | 9994.61739  | 1172.99 | <.0001 |
| Error           | 7956 | 67790          | 8.52064     |         |        |
| Corrected Total | 7979 | 297666         |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 2.91901  | R-Square | 0.7723 |
| Dependent Mean | 51.75531 | Adj R-Sq | 0.7716 |
| Coeff Var      | 5.64003  |          |        |

## Parameter Estimates

| Variable         | Label   | DF | Parameter Estimate | Standard Error | t Value |
|------------------|---|----|--------------------|----------------|---------|
| Intercept        | Intercept                                       | 1  | 36.05072           | 0.56626        | 63.66   |
| Head_Received    | Head received per lot                           | 1  | 0.00908            | 0.00076608     | 11.85   |
| Avg_Backfat      | Average backfat per lot                         | 1  | 0.07288            | 0.01700        | 4.29    |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise   | 1  | -0.14530           | 0.19487        | -0.75   |
| Shrink           | 1 minus head Killed divided by<br>head recieved | 1  | -2.42136           | 1.14156        | -2.12   |
| PLG              | Price length, purchase date<br>minus kill date  | 1  | -0.01152           | 0.05858        | -0.20   |
| Tot_live_wgt_PH  | Total live weight per head                      | 1  | -0.00893           | 0.00200        | -4.47   |
| Truck_D          | Trucking deduction                              | 1  | -0.03444           | 0.04880        | -0.71   |
| NPB_D            | NPB deduction                                   | 1  | 0.03180            | 0.00782        | 4.07    |
| Ins_D            | Insurance deduction                             | 1  | -6.74971           | 0.93489        | -7.22   |
| Other_D          | Other deduction                                 | 1  | 2.00818            | 1.78722        | 1.12    |
| Yr_2004          |   | 1  | 15.35966           | 0.15556        | 98.74   |
| Yr_2005          |   | 1  | 9.27884            | 0.13052        | 71.09   |
| IV_S1            | Dummy Var; 1 if Jan 0 else                      | 1  | 7.20082            | 0.18568        | 38.78   |
| IV_S2            | Dummy Var; 1 if Feb 0 else                      | 1  | 7.82506            | 0.18867        | 41.48   |
| IV_S3            | Dummy Var; 1 if Mar 0 else                      | 1  | 6.46036            | 0.18736        | 34.48   |
| IV_S4            | Dummy Var; 1 if Apr 0 else                      | 1  | 3.62540            | 0.18031        | 20.11   |
| IV_S5            | Dummy Var; 1 if May 0 else                      | 1  | 8.71933            | 0.16331        | 53.39   |
| IV_S6            | Dummy Var; 1 if Jun 0 else                      | 1  | 5.92995            | 0.16114        | 36.80   |
| IV_S7            | Dummy Var; 1 if Jul 0 else                      | 1  | 6.09732            | 0.16331        | 37.33   |
| IV_S8            | Dummy Var; 1 if Aug 0 else                      | 1  | 5.23851            | 0.16554        | 31.65   |
| IV_S9            | Dummy Var; 1 if Sep 0 else                      | 1  | 4.99396            | 0.17224        | 28.99   |
| IV_S10           | Dummy Var; 1 if Oct 0 else                      | 1  | 1.52410            | 0.17566        | 8.68    |
| IV_S11           | Dummy Var; 1 if Nov 0 else                      | 1  | 2.85914            | 0.16838        | 16.98   |

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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_Price Base price

## Parameter Estimates

| Variable         | Label   | DF | Pr >  t |
|------------------|---|----|---------|
| Intercept        | Intercept                                       | 1  | <.0001  |
| Head_Received    | Head received per lot                           | 1  | <.0001  |
| Avg_Backfat      | Average backfat per lot                         | 1  | <.0001  |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise   | 1  | 0.4559  |
| Shrink           | 1 minus head Killed divided by<br>head recieved | 1  | 0.0339  |
| PLG              | Price length, purchase date<br>minus kill date  | 1  | 0.8441  |
| Tot_live_wgt_PH  | Total live weight per head                      | 1  | <.0001  |
| Truck_D          | Trucking deduction                              | 1  | 0.4803  |
| NPB_D            | NPB deduction                                   | 1  | <.0001  |
| Ins_D            | Insurance deduction                             | 1  | <.0001  |
| Other_D          | Other deduction                                 | 1  | 0.2612  |
| Yr_2004          |   | 1  | <.0001  |
| Yr_2005          |   | 1  | <.0001  |
| IV_S1            | Dummy Var; 1 if Jan 0 else                      | 1  | <.0001  |
| IV_S2            | Dummy Var; 1 if Feb 0 else                      | 1  | <.0001  |
| IV_S3            | Dummy Var; 1 if Mar 0 else                      | 1  | <.0001  |
| IV_S4            | Dummy Var; 1 if Apr 0 else                      | 1  | <.0001  |
| IV_S5            | Dummy Var; 1 if May 0 else                      | 1  | <.0001  |
| IV_S6            | Dummy Var; 1 if Jun 0 else                      | 1  | <.0001  |
| IV_S7            | Dummy Var; 1 if Jul 0 else                      | 1  | <.0001  |
| IV_S8            | Dummy Var; 1 if Aug 0 else                      | 1  | <.0001  |
| IV_S9            | Dummy Var; 1 if Sep 0 else                      | 1  | <.0001  |
| IV_S10           | Dummy Var; 1 if Oct 0 else                      | 1  | <.0001  |
| IV_S11           | Dummy Var; 1 if Nov 0 else                      | 1  | <.0001  |

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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_Price Base price

## Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 23    | 2161906        | 93996       | 6803.37 | <.0001 |
| Error           | 89668 | 1238860        | 13.81608    |         |        |
| Corrected Total | 89691 | 3400766        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.71700  | R-Square | 0.6357 |
| Dependent Mean | 49.50727 | Adj R-Sq | 0.6356 |
| Coeff Var      | 7.50799  |          |        |

## Parameter Estimates

| Variable         | Label   | DF | Parameter Estimate | Standard Error | t Value |
|------------------|---|----|--------------------|----------------|---------|
| Intercept        | Intercept                                       | 1  | 43.53126           | 0.15903        | 273.73  |
| Head_Received    | Head received per lot                           | 1  | 0.00569            | 0.00019202     | 29.63   |
| Avg_Backfat      | Average backfat per lot                         | 1  | 0.12884            | 0.00340        | 37.87   |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise   | 1  | -0.03937           | 0.02970        | -1.33   |
| Shrink           | 1 minus head Killed divided by<br>head recieved | 1  | -1.18300           | 0.38227        | -3.09   |
| PLG              | Price length, purchase date<br>minus kill date  | 1  | -0.21896           | 0.01313        | -16.67  |
| Tot_live_wgt_PH  | Total live weight per head                      | 1  | -0.03712           | 0.00035685     | -104.01 |
| Truck_D          | Trucking deduction                              | 1  | -0.00499           | 0.00249        | -2.00   |
| NPB_D            | NPB deduction                                   | 1  | 0.13202            | 0.00701        | 18.84   |
| Ins_D            | Insurance deduction                             | 1  | 0.00624            | 0.00869        | 0.72    |
| Other_D          | Other deduction                                 | 1  | -0.03600           | 0.00411        | -8.76   |
| Yr_2004          |   | 1  | 13.82613           | 0.05520        | 250.45  |
| Yr_2005          |   | 1  | 8.50971            | 0.04739        | 179.58  |
| IV_S1            | Dummy Var; 1 if Jan 0 else                      | 1  | 5.78359            | 0.06599        | 87.65   |
| IV_S2            | Dummy Var; 1 if Feb 0 else                      | 1  | 5.92614            | 0.06586        | 89.99   |
| IV_S3            | Dummy Var; 1 if Mar 0 else                      | 1  | 5.73063            | 0.06458        | 88.74   |
| IV_S4            | Dummy Var; 1 if Apr 0 else                      | 1  | 3.71208            | 0.06407        | 57.94   |
| IV_S5            | Dummy Var; 1 if May 0 else                      | 1  | 7.50896            | 0.06160        | 121.90  |
| IV_S6            | Dummy Var; 1 if Jun 0 else                      | 1  | 4.70098            | 0.05998        | 78.37   |
| IV_S7            | Dummy Var; 1 if Jul 0 else                      | 1  | 4.96732            | 0.06031        | 82.37   |
| IV_S8            | Dummy Var; 1 if Aug 0 else                      | 1  | 4.30731            | 0.05843        | 73.71   |
| IV_S9            | Dummy Var; 1 if Sep 0 else                      | 1  | 3.87882            | 0.05773        | 67.19   |
| IV_S10           | Dummy Var; 1 if Oct 0 else                      | 1  | 1.45607            | 0.05730        | 25.41   |
| IV_S11           | Dummy Var; 1 if Nov 0 else                      | 1  | 1.89171            | 0.05783        | 32.71   |

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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_Price Base price

## Parameter Estimates

| Variable         | Label   | DF | Pr >  t |
|------------------|---|----|---------|
| Intercept        | Intercept                                       | 1  | <.0001  |
| Head_Received    | Head received per lot                           | 1  | <.0001  |
| Avg_Backfat      | Average backfat per lot                         | 1  | <.0001  |
| Negotiated_price | Binary Var; 1 negotiated price<br>0 otherwise   | 1  | 0.1850  |
| Shrink           | 1 minus head Killed divided by<br>head recieved | 1  | 0.0020  |
| PLG              | Price length, purchase date<br>minus kill date  | 1  | <.0001  |
| Tot_live_wgt_PH  | Total live weight per head                      | 1  | <.0001  |
| Truck_D          | Trucking deduction                              | 1  | 0.0453  |
| NPB_D            | NPB deduction                                   | 1  | <.0001  |
| Ins_D            | Insurance deduction                             | 1  | 0.4725  |
| Other_D          | Other deduction                                 | 1  | <.0001  |
| Yr_2004          |   | 1  | <.0001  |
| Yr_2005          |   | 1  | <.0001  |
| IV_S1            | Dummy Var; 1 if Jan 0 else                      | 1  | <.0001  |
| IV_S2            | Dummy Var; 1 if Feb 0 else                      | 1  | <.0001  |
| IV_S3            | Dummy Var; 1 if Mar 0 else                      | 1  | <.0001  |
| IV_S4            | Dummy Var; 1 if Apr 0 else                      | 1  | <.0001  |
| IV_S5            | Dummy Var; 1 if May 0 else                      | 1  | <.0001  |
| IV_S6            | Dummy Var; 1 if Jun 0 else                      | 1  | <.0001  |
| IV_S7            | Dummy Var; 1 if Jul 0 else                      | 1  | <.0001  |
| IV_S8            | Dummy Var; 1 if Aug 0 else                      | 1  | <.0001  |
| IV_S9            | Dummy Var; 1 if Sep 0 else                      | 1  | <.0001  |
| IV_S10           | Dummy Var; 1 if Oct 0 else                      | 1  | <.0001  |
| IV_S11           | Dummy Var; 1 if Nov 0 else                      | 1  | <.0001  |

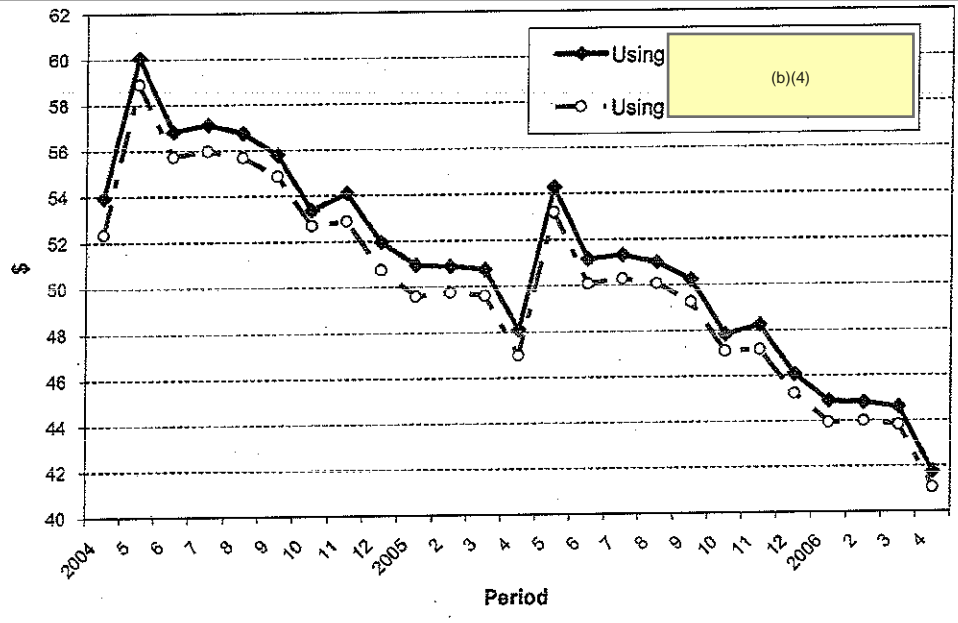
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estimates

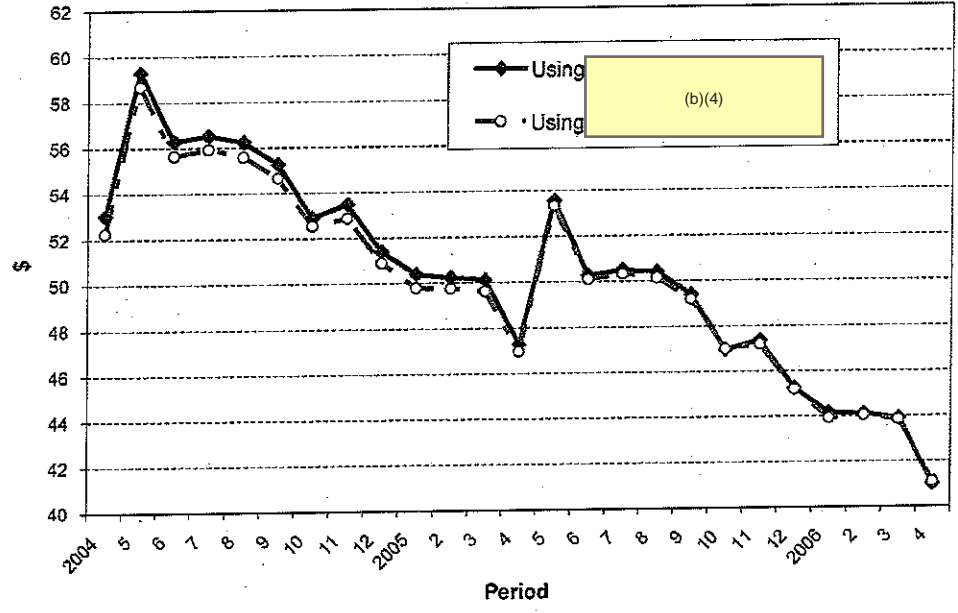
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|         |      |        |      |      |      |        |
|---------|------|--------|------|------|------|--------|
| Apr-04  | 1.60 | 0.78   | 0.06 | 0.02 | 0.06 | (0.02) |
| May-04  | 1.15 | 0.62   | 0.10 | 0.09 | 0.38 | 0.30   |
| Jun-04  | 1.09 | 0.63   | 0.12 | 0.07 | 0.12 | 0.03   |
| Jul-04  | 1.14 | 0.59   | 0.14 | 0.09 | 0.14 | 0.05   |
| Aug-04  | 1.05 | 0.65   | 0.23 | 0.16 | 0.10 | 0.03   |
| Sep-04  | 0.93 | 0.61   | 0.23 | 0.17 | 0.15 | 0.06   |
| Oct-04  | 0.66 | 0.36   | 0.20 | 0.09 | 0.15 | 0.04   |
| Nov-04  | 1.22 | 0.60   | 0.10 | 0.00 | 0.15 | 0.01   |
| Dec-04  | 1.21 | 0.50   | 0.10 | 0.01 | 0.23 | 0.03   |
| Jan-05  | 1.36 | 0.59   | 0.28 | 0.14 | 0.14 | (0.01) |
| Feb-05  | 1.15 | 0.47   | 0.23 | 0.10 | 0.11 | (0.03) |
| Mar-05  | 1.14 | 0.49   | 0.25 | 0.08 | 0.19 | 0.01   |
| Apr-05  | 1.11 | 0.32   | 0.26 | 0.08 | 0.20 | 0.00   |
| May-05  | 1.07 | 0.22   | 0.28 | 0.14 | 0.54 | 0.32   |
| Jun-05  | 1.08 | 0.17   | 0.29 | 0.10 | 0.17 | 0.05   |
| Jul-05  | 1.04 | 0.19   | 0.28 | 0.11 | 0.18 | 0.05   |
| Aug-05  | 0.92 | 0.26   | 0.31 | 0.17 | 0.13 | 0.04   |
| Sep-05  | 0.97 | 0.20   | 0.32 | 0.19 | 0.19 | 0.08   |
| Oct-05  | 0.73 | (0.03) | 0.21 | 0.10 | 0.17 | 0.04   |
| Nov-05  | 1.08 | 0.16   | 0.16 | 0.01 | 0.15 | 0.02   |
| Dec-05  | 0.85 | 0.03   | 0.13 | 0.02 | 0.25 | 0.03   |
| Jan-06  | 0.93 | 0.24   | 0.29 | 0.13 | 0.14 | (0.01) |
| Feb-06  | 0.81 | 0.06   | 0.29 | 0.09 | 0.12 | (0.03) |
| Mar-06  | 0.79 | 0.06   | 0.20 | 0.05 | 0.11 | 0.01   |
| Apr-06  | 0.68 | (0.09) | 0.21 | 0.07 | 0.10 | (0.00) |
| Average | 1.03 | 0.35   | 0.21 | 0.09 | 0.17 | 0.04   |

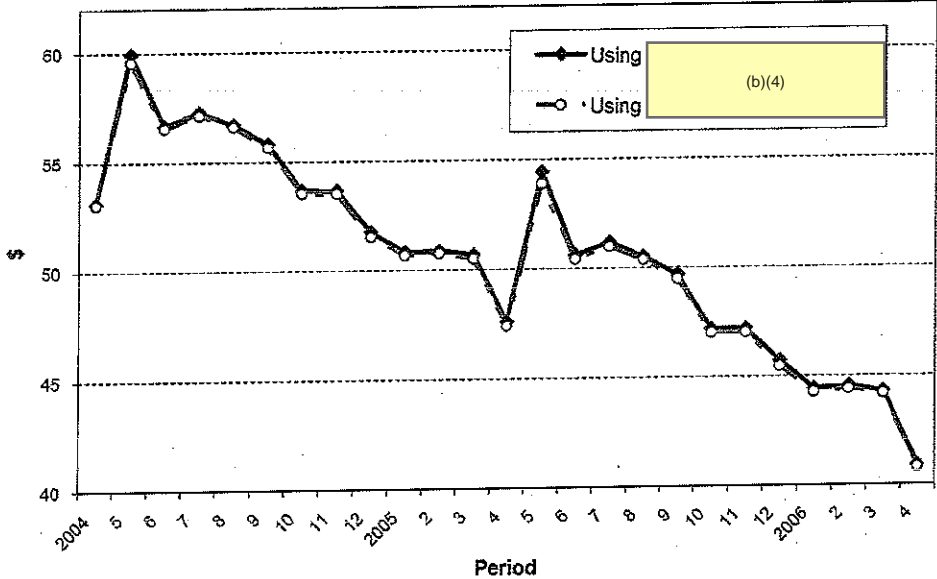
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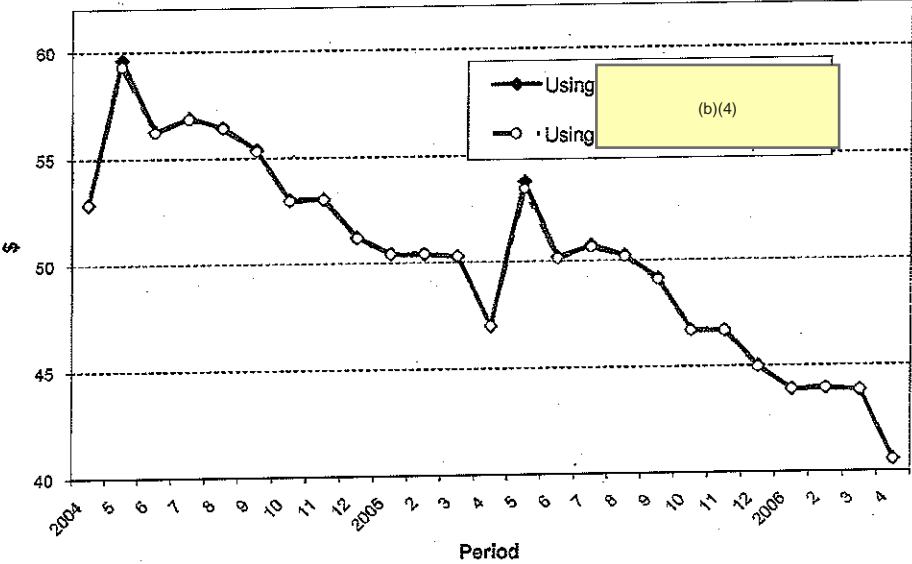
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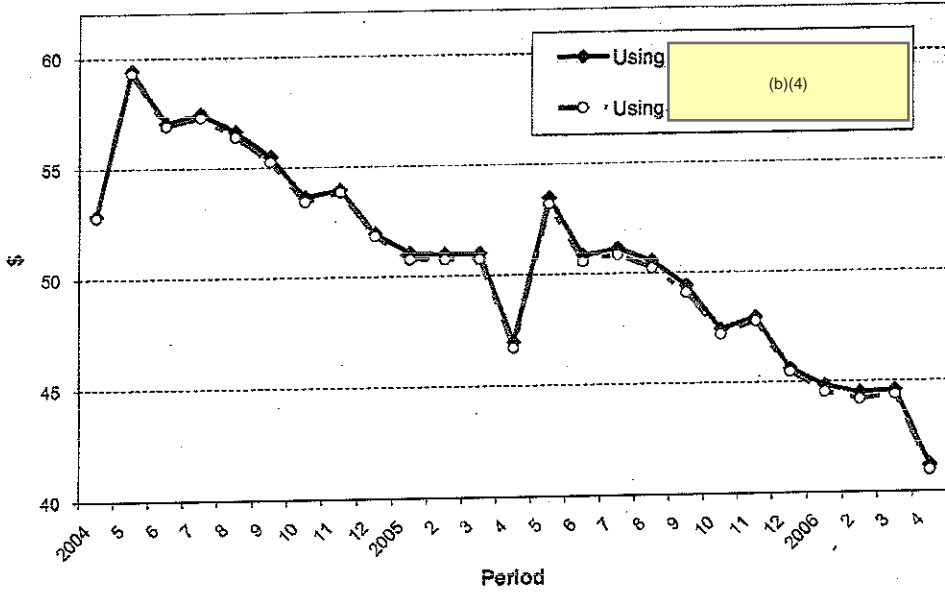


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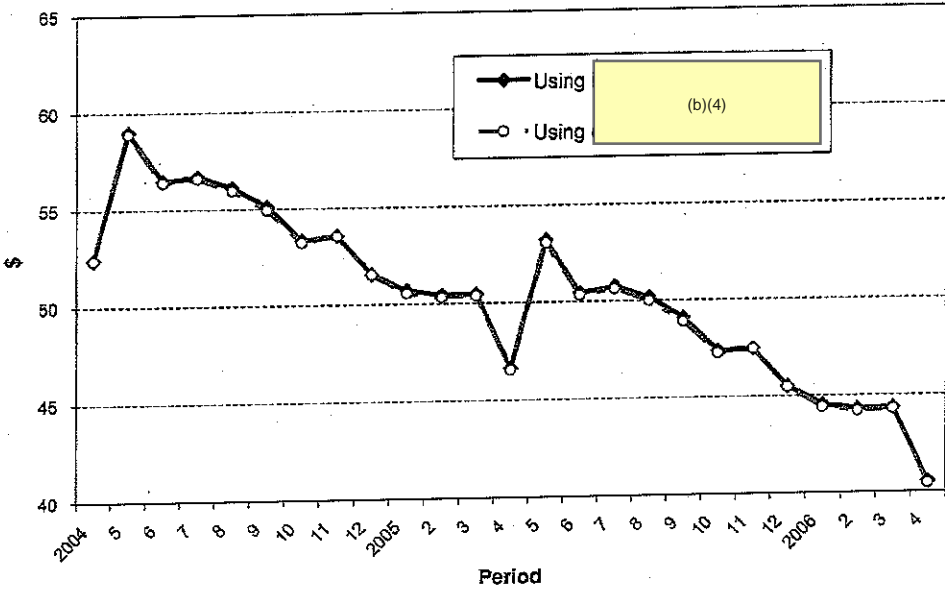




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(b)(4)



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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

## Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 17    | 783813         | 46107       | 3277.32 | <.0001 |
| Error           | 40502 | 569799         | 14.06842    |         |        |
| Corrected Total | 40519 | 1353613        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.75079  | R-Square | 0.5791 |
| Dependent Mean | 50.57290 | Adj R-Sq | 0.5789 |
| Coeff Var      | 7.41660  |          |        |

## Parameter Estimates

| Variable           | Label            | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|--------------------|------------------|----|--------------------|----------------|---------|---------|
| Intercept          | Intercept        | 1  | 59.67977           | 0.34333        | 173.83  | <.0001  |
| Head_Received      | Head_Received    | 1  | 0.00353            | 0.00030409     | 11.61   | <.0001  |
| Base_p_m           | Base_p_m         | 1  | 0.37139            | 0.01638        | 22.67   | <.0001  |
| Negotiated_price   | Negotiated_price | 1  | 0.04298            | 0.04197        | 1.02    | 0.3059  |
| Tot_carcass_Wgt_PH |                  | 1  | -0.03166           | 0.00176        | -18.03  | <.0001  |
| Sort_G_L           | Sort_G_L         | 1  | -0.71302           | 0.02477        | -28.79  | <.0001  |
| IV_S1              |                  | 1  | -0.63233           | 0.09199        | -6.87   | <.0001  |
| IV_S2              |                  | 1  | -0.23534           | 0.09252        | -2.54   | 0.0110  |
| IV_S3              |                  | 1  | 0.07711            | 0.09172        | 0.84    | 0.4005  |
| IV_S4              |                  | 1  | -2.25348           | 0.08606        | -26.19  | <.0001  |
| IV_S5              |                  | 1  | 4.50277            | 0.09582        | 46.99   | <.0001  |
| IV_S6              |                  | 1  | 1.96171            | 0.09399        | 20.87   | <.0001  |
| IV_S7              |                  | 1  | 2.76744            | 0.09384        | 29.49   | <.0001  |
| IV_S8              |                  | 1  | 2.99230            | 0.09314        | 32.13   | <.0001  |
| IV_S9              |                  | 1  | 2.57371            | 0.09084        | 28.33   | <.0001  |
| IV_S10             |                  | 1  | 0.70029            | 0.08954        | 7.82    | <.0001  |
| IV_S11             |                  | 1  | 1.65016            | 0.08973        | 18.39   | <.0001  |
| trend              |                  | 1  | -0.49117           | 0.00299        | -164.07 | <.0001  |

(b)(4)

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The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_price Base\_price

Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 17    | 497874         | 29287       | 1951.31 | <.0001 |
| Error           | 27658 | 415112         | 15.00876    |         |        |
| Corrected Total | 27675 | 912986         |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.87411  | R-Square | 0.5453 |
| Dependent Mean | 50.00359 | Adj R-Sq | 0.5450 |
| Coeff Var      | 7.74767  |          |        |

Parameter Estimates

| Variable           | Label            | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|--------------------|------------------|----|--------------------|----------------|---------|---------|
| Intercept          | Intercept        | 1  | 56.76655           | 0.44156        | 128.56  | <.0001  |
| Head_Received      | Head_Received    | 1  | 0.00090704         | 0.00035519     | 2.55    | 0.0107  |
| Base_p_m           | Base_p_m         | 1  | 0.35018            | 0.01895        | 18.48   | <.0001  |
| Negotiated_price   | Negotiated_price | 1  | 0.59147            | 0.04969        | 11.90   | <.0001  |
| Tot_carcass_Wgt_PH |                  | 1  | -0.01878           | 0.00226        | -8.31   | <.0001  |
| Sort_G_L           | Sort_G_L         | 1  | -0.44802           | 0.03253        | -13.77  | <.0001  |
| IV_S1              |                  | 1  | -0.79868           | 0.11452        | -6.97   | <.0001  |
| IV_S2              |                  | 1  | -0.34796           | 0.11432        | -3.04   | 0.0023  |
| IV_S3              |                  | 1  | -0.04249           | 0.11517        | -0.37   | 0.7121  |
| IV_S4              |                  | 1  | -2.28932           | 0.10716        | -21.36  | <.0001  |
| IV_S5              |                  | 1  | 4.60285            | 0.12168        | 37.83   | <.0001  |
| IV_S6              |                  | 1  | 2.03283            | 0.11899        | 17.08   | <.0001  |
| IV_S7              |                  | 1  | 2.69586            | 0.11726        | 22.99   | <.0001  |
| IV_S8              |                  | 1  | 2.94382            | 0.11650        | 25.27   | <.0001  |
| IV_S9              |                  | 1  | 2.50773            | 0.11403        | 21.99   | <.0001  |
| IV_S10             |                  | 1  | 0.81550            | 0.11196        | 7.28    | <.0001  |
| IV_S11             |                  | 1  | 1.53085            | 0.11299        | 13.55   | <.0001  |
| trend              |                  | 1  | -0.45894           | 0.00369        | -124.54 | <.0001  |

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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

## Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 17    | 848529         | 49913       | 4133.11 | <.0001 |
| Error           | 44875 | 541932         | 12.07648    |         |        |
| Corrected Total | 44892 | 1390461        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.47512  | R-Square | 0.6103 |
| Dependent Mean | 50.73706 | Adj R-Sq | 0.6101 |
| Coeff Var      | 6.84928  |          |        |

## Parameter Estimates

| Variable           | Label            | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|--------------------|------------------|----|--------------------|----------------|---------|---------|
| Intercept          | Intercept        | 1  | 60.19197           | 0.32012        | 188.03  | <.0001  |
| Head_Received      | Head_Received    | 1  | -0.00053540        | 0.00016181     | -3.31   | 0.0009  |
| Base_p_m           | Base_p_m         | 1  | 0.19813            | 0.01266        | 15.65   | <.0001  |
| Negotiated_price   | Negotiated_price | 1  | -1.18718           | 0.03774        | -31.46  | <.0001  |
| Tot_carcass_Wgt_PH |                  | 1  | -0.02704           | 0.00164        | -16.48  | <.0001  |
| Sort_G_L           | Sort_G_L         | 1  | -0.57026           | 0.02174        | -26.23  | <.0001  |
| IV_S1              |                  | 1  | -0.41670           | 0.08228        | -5.06   | <.0001  |
| IV_S2              |                  | 1  | -0.14578           | 0.08327        | -1.75   | 0.0800  |
| IV_S3              |                  | 1  | 0.39514            | 0.08193        | 4.82    | <.0001  |
| IV_S4              |                  | 1  | -2.89404           | 0.07635        | -37.90  | <.0001  |
| IV_S5              |                  | 1  | 4.10180            | 0.08472        | 48.42   | <.0001  |
| IV_S6              |                  | 1  | 2.04509            | 0.08158        | 25.07   | <.0001  |
| IV_S7              |                  | 1  | 2.80272            | 0.08341        | 33.60   | <.0001  |
| IV_S8              |                  | 1  | 2.69265            | 0.08113        | 33.19   | <.0001  |
| IV_S9              |                  | 1  | 2.14510            | 0.08033        | 26.70   | <.0001  |
| IV_S10             |                  | 1  | 0.92171            | 0.08010        | 11.51   | <.0001  |
| IV_S11             |                  | 1  | 1.57114            | 0.08093        | 19.41   | <.0001  |
| trend              |                  | 1  | -0.48871           | 0.00263        | -185.94 | <.0001  |

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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

## Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 17    | 748221         | 44013       | 3581.91 | <.0001 |
| Error           | 39727 | 488148         | 12.28756    |         |        |
| Corrected Total | 39744 | 1236369        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.50536  | R-Square | 0.6052 |
| Dependent Mean | 50.58801 | Adj R-Sq | 0.6050 |
| Coeff Var      | 6.92923  |          |        |

## Parameter Estimates

| Variable           | Label            | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|--------------------|------------------|----|--------------------|----------------|---------|---------|
| Intercept          | Intercept        | 1  | 59.98364           | 0.35454        | 169.19  | <.0001  |
| Head_Received      | Head_Received    | 1  | -0.00095788        | 0.00016750     | -5.72   | <.0001  |
| Base_p_m           | Base_p_m         | 1  | 0.17353            | 0.01334        | 13.01   | <.0001  |
| Negotiated_price   | Negotiated_price | 1  | -1.33237           | 0.04031        | -33.05  | <.0001  |
| Tot_carcass_Wgt_PH |                  | 1  | -0.02459           | 0.00183        | -13.44  | <.0001  |
| Sort_G_L           | Sort_G_L         | 1  | -0.45548           | 0.02453        | -18.57  | <.0001  |
| IV_S1              |                  | 1  | -0.53589           | 0.08748        | -6.13   | <.0001  |
| IV_S2              |                  | 1  | -0.23637           | 0.08821        | -2.68   | 0.0074  |
| IV_S3              |                  | 1  | 0.33575            | 0.08738        | 3.84    | 0.0001  |
| IV_S4              |                  | 1  | -2.94908           | 0.08119        | -36.32  | <.0001  |
| IV_S5              |                  | 1  | 3.97325            | 0.09094        | 43.69   | <.0001  |
| IV_S6              |                  | 1  | 1.93455            | 0.08791        | 22.01   | <.0001  |
| IV_S7              |                  | 1  | 2.68349            | 0.08953        | 29.97   | <.0001  |
| IV_S8              |                  | 1  | 2.50285            | 0.08734        | 28.66   | <.0001  |
| IV_S9              |                  | 1  | 1.94794            | 0.08543        | 22.80   | <.0001  |
| IV_S10             |                  | 1  | 0.81155            | 0.08476        | 9.58    | <.0001  |
| IV_S11             |                  | 1  | 1.57286            | 0.08547        | 18.40   | <.0001  |
| trend              |                  | 1  | -0.48939           | 0.00281        | -174.16 | <.0001  |

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The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

## Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 17    | 1042503        | 61324       | 5429.65 | <.0001 |
| Error           | 51355 | 580015         | 11.29423    |         |        |
| Corrected Total | 51372 | 1622518        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.36069  | R-Square | 0.6425 |
| Dependent Mean | 50.18429 | Adj R-Sq | 0.6424 |
| Coeff Var      | 6.69670  |          |        |

## Parameter Estimates

| Variable           | Label            | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|--------------------|------------------|----|--------------------|----------------|---------|---------|
| Intercept          | Intercept        | 1  | 55.07453           | 0.30251        | 182.06  | <.0001  |
| Head_Received      | Head_Received    | 1  | 0.00122            | 0.00024940     | 4.90    | <.0001  |
| Base_p_m           | Base_p_m         | 1  | 0.38351            | 0.01183        | 32.43   | <.0001  |
| Negotiated_price   | Negotiated_price | 1  | -0.46457           | 0.03107        | -14.95  | <.0001  |
| Tot_carcass_Wgt_PH |                  | 1  | -0.00472           | 0.00154        | -3.06   | 0.0022  |
| Sort_G_L           | Sort_G_L         | 1  | -0.53530           | 0.02115        | -25.31  | <.0001  |
| IV_S1              |                  | 1  | -0.59045           | 0.07202        | -8.20   | <.0001  |
| IV_S2              |                  | 1  | -0.04265           | 0.07303        | -0.58   | 0.5592  |
| IV_S3              |                  | 1  | 0.38460            | 0.07165        | 5.37    | <.0001  |
| IV_S4              |                  | 1  | -2.35460           | 0.06776        | -34.75  | <.0001  |
| IV_S5              |                  | 1  | 4.62598            | 0.07616        | 60.74   | <.0001  |
| IV_S6              |                  | 1  | 2.09234            | 0.07421        | 28.20   | <.0001  |
| IV_S7              |                  | 1  | 3.14264            | 0.07631        | 41.18   | <.0001  |
| IV_S8              |                  | 1  | 3.18604            | 0.07328        | 43.48   | <.0001  |
| IV_S9              |                  | 1  | 2.67191            | 0.07103        | 37.62   | <.0001  |
| IV_S10             |                  | 1  | 0.82483            | 0.07108        | 11.60   | <.0001  |
| IV_S11             |                  | 1  | 1.33466            | 0.07065        | 18.89   | <.0001  |
| trend              |                  | 1  | -0.51269           | 0.00235        | -218.59 | <.0001  |

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: Base\_price Base\_price

10.11

## Analysis of Variance

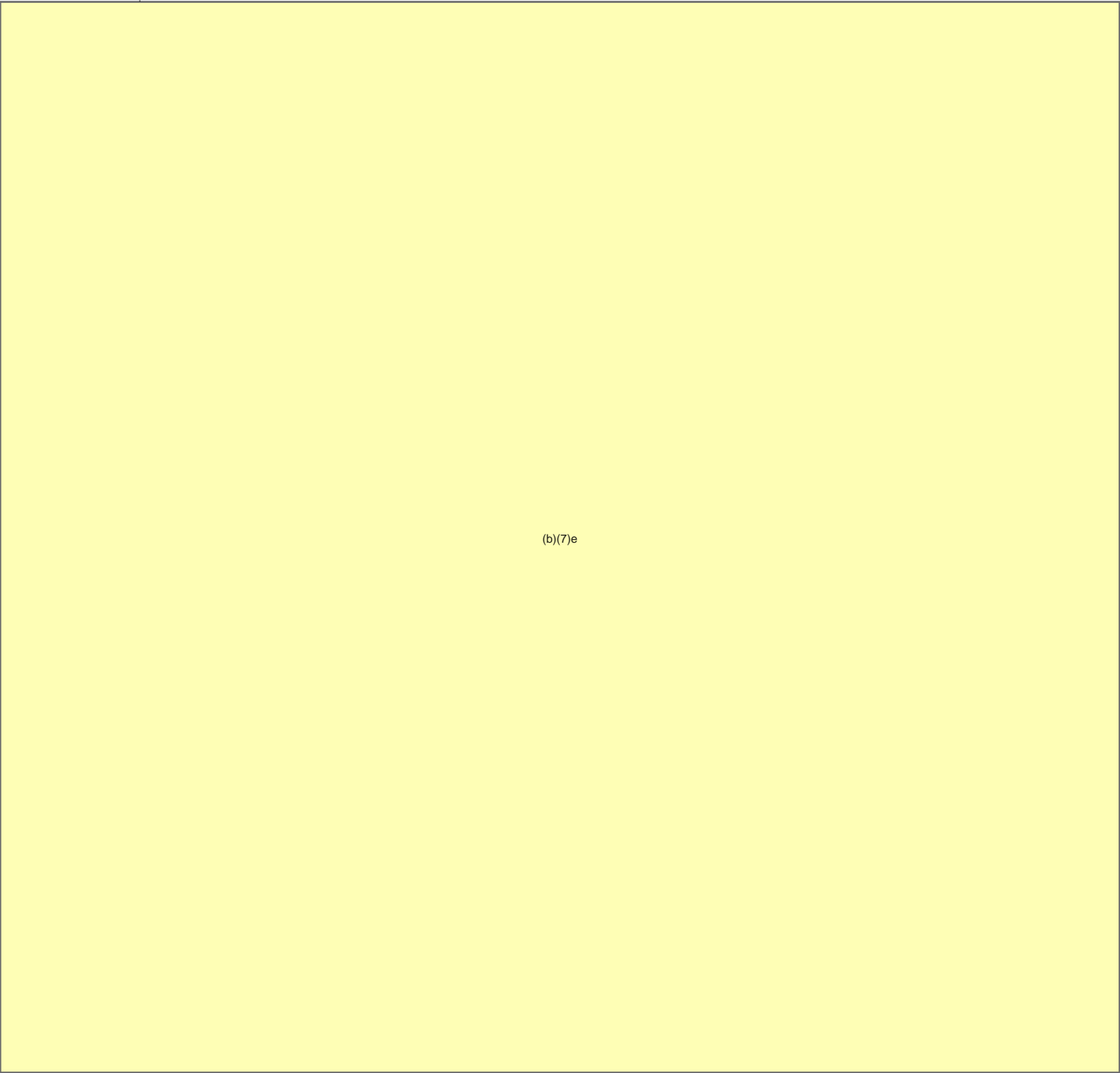
| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 17    | 975064         | 57357       | 5069.21 | <.0001 |
| Error           | 48499 | 548752         | 11.31471    |         |        |
| Corrected Total | 48516 | 1523816        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.36373  | R-Square | 0.6399 |
| Dependent Mean | 50.12104 | Adj R-Sq | 0.6398 |
| Coeff Var      | 6.71122  |          |        |

## Parameter Estimates

| Variable           | Label            | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|--------------------|------------------|----|--------------------|----------------|---------|---------|
| Intercept          | Intercept        | 1  | 54.98694           | 0.31358        | 175.35  | <.0001  |
| Head_Received      | Head_Received    | 1  | 0.00079183         | 0.00026193     | 3.02    | 0.0025  |
| Base_p_m           | Base_p_m         | 1  | 0.37496            | 0.01213        | 30.90   | <.0001  |
| Negotiated_price   | Negotiated_price | 1  | -0.43959           | 0.03157        | -13.93  | <.0001  |
| Tot_carcass_Wgt_PH |                  | 1  | -0.00381           | 0.00160        | -2.38   | 0.0172  |
| Sort_G_L           | Sort_G_L         | 1  | -0.46603           | 0.02274        | -20.50  | <.0001  |
| IV_S1              |                  | 1  | -0.53557           | 0.07415        | -7.22   | <.0001  |
| IV_S2              |                  | 1  | 0.01955            | 0.07524        | 0.26    | 0.7950  |
| IV_S3              |                  | 1  | 0.40637            | 0.07351        | 5.53    | <.0001  |
| IV_S4              |                  | 1  | -2.32199           | 0.07010        | -33.12  | <.0001  |
| IV_S5              |                  | 1  | 4.63439            | 0.07834        | 59.16   | <.0001  |
| IV_S6              |                  | 1  | 2.06601            | 0.07670        | 26.94   | <.0001  |
| IV_S7              |                  | 1  | 3.10692            | 0.07916        | 39.25   | <.0001  |
| IV_S8              |                  | 1  | 3.16582            | 0.07524        | 42.08   | <.0001  |
| IV_S9              |                  | 1  | 2.61941            | 0.07313        | 35.82   | <.0001  |
| IV_S10             |                  | 1  | 0.81243            | 0.07311        | 11.11   | <.0001  |
| IV_S11             |                  | 1  | 1.35157            | 0.07260        | 18.62   | <.0001  |
| trend              |                  | 1  | -0.51361           | 0.00242        | -212.40 | <.0001  |

11011



(b)(7)e



(b)(4)

15:24 Thursday, December 7, 2006

The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_price Base\_price

Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 17    | 1151720        | 67748       | 2666.34 | <.0001 |
| Error           | 32489 | 825502         | 25.40867    |         |        |
| Corrected Total | 32506 | 1977223        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 5.04070  | R-Square | 0.5825 |
| Dependent Mean | 68.05387 | Adj R-Sq | 0.5823 |
| Coeff Var      | 7.40693  |          |        |

Parameter Estimates

| Variable         | Label            | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|------------------|------------------|----|--------------------|----------------|---------|---------|
| Intercept        | Intercept        | 1  | 54.02439           | 0.53587        | 100.82  | <.0001  |
| Head_Received    | Head_Received    | 1  | 0.00341            | 0.00041826     | 8.15    | <.0001  |
| Avg_backfat      | Avg_backfat      | 1  | -2.67454           | 0.32213        | -8.30   | <.0001  |
| Negotiated_Price | Negotiated_Price | 1  | 0.53975            | 0.05995        | 9.00    | <.0001  |
| Tot_Live_Wgt_PH  |                  | 1  | -0.00673           | 0.00201        | -3.35   | 0.0008  |
| Yr_2004          |                  | 1  | 17.20101           | 0.11645        | 147.71  | <.0001  |
| Yr_2005          |                  | 1  | 10.84922           | 0.10161        | 106.77  | <.0001  |
| IV_S1            |                  | 1  | 7.15584            | 0.15242        | 46.95   | <.0001  |
| IV_S2            |                  | 1  | 6.93535            | 0.15261        | 45.44   | <.0001  |
| IV_S3            |                  | 1  | 6.82529            | 0.15092        | 45.22   | <.0001  |
| IV_S4            |                  | 1  | 2.34132            | 0.13022        | 17.98   | <.0001  |
| IV_S5            |                  | 1  | 10.98311           | 0.13913        | 78.94   | <.0001  |
| IV_S6            |                  | 1  | 6.77938            | 0.13928        | 48.67   | <.0001  |
| IV_S7            |                  | 1  | 7.17794            | 0.13992        | 51.30   | <.0001  |
| IV_S8            |                  | 1  | 6.66429            | 0.14102        | 47.26   | <.0001  |
| IV_S9            |                  | 1  | 5.47230            | 0.13735        | 39.84   | <.0001  |
| IV_S10           |                  | 1  | 2.39821            | 0.13522        | 17.74   | <.0001  |
| IV_S11           |                  | 1  | 2.83094            | 0.13694        | 20.67   | <.0001  |

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15:24 Thursday, December 7, 2006

The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_price Base\_price

Analysis of Variance

| Source          | DF   | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|------|----------------|-------------|---------|--------|
| Model           | 17   | 387762         | 22810       | 1795.62 | <.0001 |
| Error           | 8186 | 103986         | 12.70289    |         |        |
| Corrected Total | 8203 | 491748         |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.56411  | R-Square | 0.7885 |
| Dependent Mean | 69.47861 | Adj R-Sq | 0.7881 |
| Coeff Var      | 5.12980  |          |        |

Parameter Estimates

| Variable         | Label            | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|------------------|------------------|----|--------------------|----------------|---------|---------|
| Intercept        | Intercept        | 1  | 45.91731           | 0.73328        | 62.62   | <.0001  |
| Head_Received    | Head_Received    | 1  | 0.00239            | 0.00122        | 1.96    | 0.0497  |
| Avg_backfat      | Avg_backfat      | 1  | -4.41113           | 0.62380        | -7.07   | <.0001  |
| Negotiated_Price | Negotiated_Price | 1  | -1.18699           | 0.30146        | -3.94   | <.0001  |
| Tot_Live_Wgt_PH  |                  | 1  | 0.01494            | 0.00291        | 5.14    | <.0001  |
| Yr_2004          |                  | 1  | 25.48335           | 0.18116        | 140.67  | <.0001  |
| Yr_2005          |                  | 1  | 14.56859           | 0.13500        | 107.92  | <.0001  |
| IV_S1            |                  | 1  | 11.79592           | 0.20332        | 58.02   | <.0001  |
| IV_S2            |                  | 1  | 11.61762           | 0.20717        | 56.08   | <.0001  |
| IV_S3            |                  | 1  | 11.08233           | 0.20483        | 54.11   | <.0001  |
| IV_S4            |                  | 1  | 10.17820           | 0.20257        | 50.24   | <.0001  |
| IV_S5            |                  | 1  | 14.44483           | 0.22736        | 63.53   | <.0001  |
| IV_S6            |                  | 1  | 7.61538            | 0.19838        | 38.39   | <.0001  |
| IV_S7            |                  | 1  | 8.22904            | 0.19903        | 41.35   | <.0001  |
| IV_S8            |                  | 1  | 8.05191            | 0.18944        | 42.50   | <.0001  |
| IV_S9            |                  | 1  | 6.50565            | 0.18577        | 35.02   | <.0001  |
| IV_S10           |                  | 1  | 2.17467            | 0.18408        | 11.81   | <.0001  |
| IV_S11           |                  | 1  | 3.16779            | 0.17761        | 17.84   | <.0001  |

(b)(4)

16:51 Wednesday, December 20, 2006

The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_Price Base\_Price

Analysis of Variance

| Source          | DF   | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|------|----------------|-------------|---------|--------|
| Model           | 24   | 235162         | 9798.43613  | 1247.07 | <.0001 |
| Error           | 7955 | 62504          | 7.85719     |         |        |
| Corrected Total | 7979 | 297666         |             |         |        |

Root MSE 2.80307 R-Square 0.7900  
Dependent Mean 51.75531 Adj R-Sq 0.7894  
Coeff Var 5.41600

Parameter Estimates

| Variable        | Label         | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|-----------------|---------------|----|--------------------|----------------|---------|---------|
| Intercept       | Intercept     | 1  | 37.05865           | 0.54508        | 67.99   | <.0001  |
| Head_Received   | Head_Received | 1  | 0.00109            | 0.00079819     | 1.37    | 0.1711  |
| Avg_Backfat     | Avg_Backfat   | 1  | 0.01915            | 0.01647        | 1.16    | 0.2451  |
| IV_Prm          |               | 1  | 0.17485            | 0.18290        | 0.96    | 0.3391  |
| Cash            |               | 1  | -7.92300           | 0.30895        | -25.64  | <.0001  |
| Shrink          | Shrink        | 1  | -0.26231           | 1.09923        | -0.24   | 0.8114  |
| PLG             | PLG           | 1  | -0.14975           | 0.05630        | -2.66   | 0.0078  |
| Tot_Live_Wgt_PH |               | 1  | -0.00318           | 0.00193        | -1.64   | 0.1001  |
| Truck_D         |               | 1  | -0.06073           | 0.04687        | -1.30   | 0.1951  |
| NPB_D           |               | 1  | 0.00474            | 0.00758        | 0.63    | 0.5316  |
| Ins_D           |               | 1  | -0.13543           | 0.93397        | -0.15   | 0.8847  |
| Other_D         |               | 1  | 0.92914            | 1.71679        | 0.54    | 0.5884  |
| Yr_2004         |               | 1  | 15.15820           | 0.14995        | 101.09  | <.0001  |
| Yr_2005         |               | 1  | 8.98637            | 0.12619        | 71.21   | <.0001  |
| IV_S1           |               | 1  | 7.15032            | 0.17780        | 40.22   | <.0001  |
| IV_S2           |               | 1  | 7.85176            | 0.18173        | 43.21   | <.0001  |
| IV_S3           |               | 1  | 6.74685            | 0.18059        | 37.36   | <.0001  |
| IV_S4           |               | 1  | 3.67142            | 0.17353        | 21.16   | <.0001  |
| IV_S5           |               | 1  | 8.74486            | 0.15689        | 55.74   | <.0001  |
| IV_S6           |               | 1  | 5.98717            | 0.15424        | 38.82   | <.0001  |
| IV_S7           |               | 1  | 6.21089            | 0.15758        | 39.41   | <.0001  |
| IV_S8           |               | 1  | 5.35342            | 0.15874        | 33.72   | <.0001  |
| IV_S9           |               | 1  | 5.21347            | 0.16613        | 31.38   | <.0001  |
| IV_S10          |               | 1  | 1.63743            | 0.16852        | 9.72    | <.0001  |
| IV_S11          |               | 1  | 3.03227            | 0.16194        | 18.72   | <.0001  |

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16:51 Wednesday, December 20, 2006

The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_Price Base\_Price

Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 24    | 2252161        | 93840       | 7316.02 | <.0001 |
| Error           | 89701 | 1150564        | 12.82665    |         |        |
| Corrected Total | 89725 | 3402725        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.58143  | R-Square | 0.6619 |
| Dependent Mean | 49.50990 | Adj R-Sq | 0.6618 |
| Coeff Var      | 7.23377  |          |        |

Parameter Estimates

| Variable        | Label         | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|-----------------|---------------|----|--------------------|----------------|---------|---------|
| Intercept       | Intercept     | 1  | 41.99074           | 0.15436        | 272.04  | <.0001  |
| Head_Received   | Head_Received | 1  | 0.00430            | 0.00018578     | 23.16   | <.0001  |
| Avg_Backfat     | Avg_Backfat   | 1  | 0.14703            | 0.00328        | 44.76   | <.0001  |
| IV_Prm          |               | 1  | -0.06645           | 0.02862        | -2.32   | 0.0202  |
| Cash            |               | 1  | -2.71010           | 0.03308        | -81.92  | <.0001  |
| Shrink          | Shrink        | 1  | -1.12222           | 0.36831        | -3.05   | 0.0023  |
| PLG             | PLG           | 1  | -0.25533           | 0.01265        | -20.19  | <.0001  |
| Tot_Live_Wgt_PH |               | 1  | -0.03010           | 0.00035405     | -85.00  | <.0001  |
| Truck_D         |               | 1  | -0.01231           | 0.00240        | -5.12   | <.0001  |
| NPB_D           |               | 1  | 0.10053            | 0.00676        | 14.86   | <.0001  |
| Ins_D           |               | 1  | -0.00768           | 0.00837        | -0.92   | 0.3588  |
| Other_D         |               | 1  | 0.00045994         | 0.00398        | 0.12    | 0.9081  |
| Yr_2004         |               | 1  | 13.86440           | 0.05329        | 260.19  | <.0001  |
| Yr_2005         |               | 1  | 8.51321            | 0.04577        | 185.99  | <.0001  |
| IV_S1           |               | 1  | 5.83536            | 0.06354        | 91.83   | <.0001  |
| IV_S2           |               | 1  | 5.97624            | 0.06364        | 93.90   | <.0001  |
| IV_S3           |               | 1  | 5.74086            | 0.06242        | 91.98   | <.0001  |
| IV_S4           |               | 1  | 3.74622            | 0.06192        | 60.50   | <.0001  |
| IV_S5           |               | 1  | 7.47132            | 0.05940        | 125.77  | <.0001  |
| IV_S6           |               | 1  | 4.62510            | 0.05785        | 79.94   | <.0001  |
| IV_S7           |               | 1  | 4.97787            | 0.05841        | 85.23   | <.0001  |
| IV_S8           |               | 1  | 4.27602            | 0.05626        | 76.00   | <.0001  |
| IV_S9           |               | 1  | 3.84965            | 0.05552        | 69.34   | <.0001  |
| IV_S10          |               | 1  | 1.22371            | 0.05563        | 22.00   | <.0001  |
| IV_S11          |               | 1  | 1.84773            | 0.05580        | 33.12   | <.0001  |

(b)(4)

16:51 Wednesday, December 20,

2006

The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_Price Base\_Price

Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 24    | 186346         | 7764.40534  | 652.37  | <.0001 |
| Error           | 10336 | 123018         | 11.90186    |         |        |
| Corrected Total | 10360 | 309363         |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.44991  | R-Square | 0.6024 |
| Dependent Mean | 51.14097 | Adj R-Sq | 0.6014 |
| Coeff Var      | 6.74588  |          |        |

Parameter Estimates

| Variable        | Label         | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|-----------------|---------------|----|--------------------|----------------|---------|---------|
| Intercept       | Intercept     | 1  | 35.73285           | 0.54998        | 64.97   | <.0001  |
| Head_Received   | Head_Received | 1  | 0.00537            | 0.00067418     | 7.96    | <.0001  |
| Avg_Backfat     | Avg_Backfat   | 1  | 0.22623            | 0.01344        | 16.83   | <.0001  |
| IV_Prm          |               | 1  | -0.54837           | 0.11285        | -4.86   | <.0001  |
| Cash            |               | 1  | 0.57990            | 0.26417        | 2.20    | 0.0282  |
| Shrink          | Shrink        | 1  | -0.73827           | 0.74305        | -0.99   | 0.3205  |
| PLG             | PLG           | 1  | -0.04148           | 0.05400        | -0.77   | 0.4423  |
| Tot_Live_Wgt_PH |               | 1  | -0.02276           | 0.00160        | -14.19  | <.0001  |
| Truck_D         |               | 1  | -0.42930           | 0.02692        | -15.95  | <.0001  |
| NPB_D           |               | 1  | 0.81643            | 0.04671        | 17.48   | <.0001  |
| Ins_D           |               | 1  | -0.45677           | 0.07801        | -5.86   | <.0001  |
| Other_D         |               | 1  | -0.02153           | 0.01633        | -1.32   | 0.1874  |
| Yr_2004         |               | 1  | 15.48372           | 0.17567        | 88.14   | <.0001  |
| Yr_2005         |               | 1  | 10.69532           | 0.15376        | 69.56   | <.0001  |
| IV_S1           |               | 1  | 7.52382            | 0.19161        | 39.27   | <.0001  |
| IV_S2           |               | 1  | 6.27003            | 0.18985        | 33.03   | <.0001  |
| IV_S3           |               | 1  | 5.97224            | 0.19035        | 31.37   | <.0001  |
| IV_S4           |               | 1  | 4.36570            | 0.17334        | 25.19   | <.0001  |
| IV_S5           |               | 1  | 7.64260            | 0.16131        | 47.38   | <.0001  |
| IV_S6           |               | 1  | 4.84097            | 0.15185        | 31.88   | <.0001  |
| IV_S7           |               | 1  | 5.32295            | 0.16338        | 32.58   | <.0001  |
| IV_S8           |               | 1  | 4.92158            | 0.16190        | 30.40   | <.0001  |
| IV_S9           |               | 1  | 4.50610            | 0.16346        | 27.57   | <.0001  |
| IV_S10          |               | 1  | 1.63425            | 0.15967        | 10.24   | <.0001  |
| IV_S11          |               | 1  | 1.51128            | 0.15767        | 9.59    | <.0001  |

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2006

16:51 Wednesday, December 20,

The REG Procedure  
Model: MODEL1  
Dependent Variable: Base\_Price Base\_Price

Analysis of Variance

| Source          | DF    | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|-------|----------------|-------------|---------|--------|
| Model           | 24    | 1228700        | 51196       | 4230.33 | <.0001 |
| Error           | 62276 | 753670         | 12.10209    |         |        |
| Corrected Total | 62300 | 1982370        |             |         |        |

|                |          |          |        |
|----------------|----------|----------|--------|
| Root MSE       | 3.47881  | R-Square | 0.6198 |
| Dependent Mean | 50.22008 | Adj R-Sq | 0.6197 |
| Coeff Var      | 6.92712  |          |        |

Parameter Estimates

| Variable        | Label         | DF | Parameter Estimate | Standard Error | t Value | Pr >  t |
|-----------------|---------------|----|--------------------|----------------|---------|---------|
| Intercept       | Intercept     | 1  | 43.12765           | 0.20294        | 212.52  | <.0001  |
| Head_Received   | Head_Received | 1  | 0.00519            | 0.00020685     | 25.10   | <.0001  |
| Avg_Backfat     | Avg_Backfat   | 1  | 0.13449            | 0.00436        | 30.87   | <.0001  |
| IV_Prm          |               | 1  | -0.25588           | 0.03182        | -8.04   | <.0001  |
| Cash            |               | 1  | -0.28975           | 0.03250        | -8.91   | <.0001  |
| Shrink          | Shrink        | 1  | -1.51230           | 0.30450        | -4.97   | <.0001  |
| PLG             | PLG           | 1  | -0.20787           | 0.01389        | -14.96  | <.0001  |
| Tot_Live_Wgt_PH |               | 1  | -0.03156           | 0.00054888     | -57.49  | <.0001  |
| Truck_D         |               | 1  | -0.02832           | 0.00562        | -5.04   | <.0001  |
| NPE_D           |               | 1  | 0.33800            | 0.01184        | 28.55   | <.0001  |
| Ins_D           |               | 1  | -0.05808           | 0.01629        | -3.57   | 0.0004  |
| Other_D         |               | 1  | 0.00282            | 0.00610        | 0.46    | 0.6436  |
| Yr_2004         |               | 1  | 13.19721           | 0.06244        | 211.35  | <.0001  |
| Yr_2005         |               | 1  | 7.64072            | 0.05320        | 143.61  | <.0001  |
| IV_S1           |               | 1  | 4.99038            | 0.07643        | 65.29   | <.0001  |
| IV_S2           |               | 1  | 5.65404            | 0.07438        | 76.01   | <.0001  |
| IV_S3           |               | 1  | 5.30070            | 0.07386        | 71.77   | <.0001  |
| IV_S4           |               | 1  | 3.48556            | 0.07095        | 49.13   | <.0001  |
| IV_S5           |               | 1  | 7.45924            | 0.07077        | 105.40  | <.0001  |
| IV_S6           |               | 1  | 4.44942            | 0.06855        | 64.90   | <.0001  |
| IV_S7           |               | 1  | 4.62498            | 0.06874        | 67.28   | <.0001  |
| IV_S8           |               | 1  | 4.47188            | 0.06686        | 66.89   | <.0001  |
| IV_S9           |               | 1  | 3.81449            | 0.06554        | 58.20   | <.0001  |
| IV_S10          |               | 1  | 1.06407            | 0.06631        | 16.05   | <.0001  |
| IV_S11          |               | 1  | 2.01707            | 0.06659        | 30.29   | <.0001  |