



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



## **Analysis of USDA Mandatory Hog Price Data**

**Glenn Grimes  
Ron Plain  
And  
Steve Meyer**

*Department of Agricultural Economics Working Paper No. AEWP 2004-06*

July 2004

The Department of Agricultural Economics is a part of the Social Sciences Unit of the  
College of Agriculture, Food and Natural Resources at the University of Missouri-Columbia  
200 Mumford Hall, Columbia, MO 65211 USA  
Phone: 573-882-3545 • Fax: 573-882-3958 • <http://www.ssu.missouri.edu/agecon>

## **Analysis of USDA Mandatory Hog Price Data**

*Glenn Grimes, Professor Emeritus, University of Missouri*  
*Ron Plain, Professor, Agricultural Economics Department, University of Missouri*  
*Steve Meyer, President, Paragon Economics*

The USDA Mandatory Price Reporting System Price Data Reports started in 2001 as part of the Livestock Reporting Act of 1999. These reports cover about 90% of the Federally Inspected hog slaughter. This analysis reviews reports for 2002 and 2003.

In general, these data indicate that pork producers will be better off using the afternoon or prior-day price reports from USDA's Agricultural Marketing Service as their base price for marketing contracts. In addition, producers should avoid using the Eastern Corn Belt price. The Iowa-Minnesota and Western Corn Belt prices are very comparable and marginally higher than the national price.

Table 1 shows the comparison of afternoon and morning weighted average prices for negotiated hogs in the four geographic areas covered by USDA's Mandatory Price Reporting System Reports. Note that the afternoon minus the morning price differences are all positive, with one exception, and are generally largest for the Eastern Corn Belt. These positive differences exist in quarters where prices were trending downward as well as quarters with uptrending prices. We believe that the best explanation for the positive difference is that many marketing contracts are currently priced off the morning reports, thus creating an incentive for packers to delay aggressive bidding until after the morning report data have been submitted to USDA. Afternoon prices are then bid higher.

Table 2 shows the differences between weighted average prices for negotiated hogs on USDA's Prior Day Report (issued at 8:00 a.m. and covering all of the animals purchased the previous day) and the afternoon report of that prior day. Few consistent differences can be seen in these data.

Theoretically, the prior-day report prices should be the most stable and hardest to manipulate of all the prices published under Mandatory Price Reporting since it represents all of the hogs purchased on a given day. These data suggest that the prior day price is not consistently different from the afternoon price which should include most of the hogs purchased during a given day.

Table 3 and Table 4 compare prices for the Eastern Corn Belt, Western Corn Belt, and the nation to the Iowa-Minnesota price in the afternoon and prior day reports. The only consistent positive differences are found between the Iowa-Minnesota and Eastern Corn Belt prices and, interestingly, these differences appear in both the afternoon and prior day reports. These data demonstrate the expected situation of higher prices in the Western Corn Belt and Iowa-Minnesota, which is a subset of the Western Corn Belt data where there are more packing plants and some hog-deficit areas. However, in the third quarter of 2003, the Eastern Corn Belt was above Iowa-Minnesota.

These results are no surprise to veteran market observers. The number of marketing contracts tied to morning price quotes has created a strong incentive to delay aggressive bidding until later in the day. These price data suggest that most of that bidding is done in the late morning and early afternoon. Hog-deficit areas in Iowa and Minnesota usually have the highest hog prices in the United States.

Producers should negotiate marketing contracts to use either the afternoon or prior-day Iowa-Minnesota or Western Corn Belt price as the base. Not only will these prices be higher, but their inclusion of large numbers of hogs and larger time periods will make price manipulation more difficult.

**Table 1**  
**Negotiated Barrow and Gilt Prices,**  
*Difference of Afternoon over Morning Price (\$ per cwt.)*

Period	Iowa-Minn	Eastern Corn Belt	Western Corn Belt	Nation
First Quarter 2002	0.05	0.22	0.15	0.15
Second Quarter 2002	0.20	0.36	0.33	0.31
Third Quarter 2002	0.25	0.37	0.30	0.24
Fourth Quarter 2002	0.26	0.78	0.31	0.51
First Quarter 2003	0.40	0.86	0.43	0.53
Second Quarter 2003	0.47	0.26	0.42	0.38
Third Quarter 2003	0.90	-0.09	0.32	0.13
Fourth Quarter 2003	0.50	0.04	0.45	0.24

**Table 2**  
**Negotiated Barrow and Gilt Prices**  
*Prior Day Minus Afternoon Price (\$ per cwt.)*

Period	Iowa-Minn	Eastern Corn Belt	Western Corn Belt	Nation
First Quarter 2002	-0.12	0.02	-0.17	-0.09
Second Quarter 2002	-0.05	0.08	0.01	0.06
Third Quarter 2002	-0.18	-0.10	-0.16	-0.13
Fourth Quarter 2002	0.09	0.02	0.13	0.08
First Quarter 2003	0.07	-0.05	0.10	0.07
Second Quarter 2003	0.02	-0.12	0.24	0.32
Third Quarter 2003	-0.36	0.05	-0.11	-0.04
Fourth Quarter 2003	0.13	0.07	0.26	0.28

**Table 3**  
**Negotiated Barrow and Gilt Prices**  
*Afternoon Price Comparison (\$ per cwt.)*

Period	IA-MN Minus ECB	IA-MN Minus WCB	IA-MN Minus Nation
First Quarter 2002	0.49	-0.02	0.19
Second Quarter 2002	0.60	-0.03	0.22
Third Quarter 2002	1.85	0.02	0.75
Fourth Quarter 2002	-0.06	-0.08	-0.10
First Quarter 2003	-0.01	-0.05	-0.04
Second Quarter 2003	0.52	0.12	0.24
Third Quarter 2003	-0.09	0.10	0.07
Fourth Quarter 2003	0.92	0.04	0.42

**Table 4**  
**Negotiated Barrow and Gilt Prices**  
*Prior Day Price Comparison (\$ per cwt.)*

Period	IA-MN Minus ECB	IA-MN Minus WCB	IA-MN Minus Nation
First Quarter 2002	0.28	0.03	0.12
Second Quarter 2002	0.48	-0.04	0.17
Third Quarter 2002	2.01	-0.09	0.77
Fourth Quarter 2002	0.05	-0.08	-0.04
First Quarter 2003	0.09	-0.08	-0.02
Second Quarter 2003	0.66	0.09	0.13
Third Quarter 2003	-0.50	-0.15	-0.25
Fourth Quarter 2003	0.98	-0.09	0.27

*This study was funded by the National Pork Board and the University of Missouri-Columbia.*