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regarding

"Economic Challenges and Opportunities Facing American Agricultural Producers Today"

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Good morning Chairman Harkin and members of the committee. My name is Mary Muth, and I am director of the Food and Agricultural Policy Research Program at RTI International, an independent not-for-profit research institute in Research Triangle Park, North Carolina. I was the project manager for the congressionally funded GIPSA Livestock and Meat Marketing Study that was completed earlier this year. I am an agricultural economist by training and have a PhD in economics from North Carolina State University. I have been conducting analyses of the livestock and meat industries for almost 15 years. In addition, my husband's family owns a cow-calf operation in western Kentucky. I am pleased to be here and thank you for the opportunity to provide an overview of the findings of the Livestock and Meat Marketing Study.

The study was conducted from July 2004 through January 2007 by a team of researchers at RTI International, Iowa State University, North Carolina State University, Montana State University, Colorado State University, and the Wharton School at the University of Pennsylvania. The team conducted a large number and range of analyses for the study to meet the requirements of the Performance Work Statement for the contract with GIPSA.

The study addresses the economic effects that alternative marketing arrangements have on the livestock and meat industries. As you know, the cash (or spot) market includes auctions, direct trade, and use of dealers and brokers. In contrast, alternative marketing arrangements include all other marketing methods such as marketing agreements, marketing and production contracts, packer ownership, and forward contracts. The final report comprises six volumes covering the various aspects of the analysis. It follows publication of an interim report in August 2005 that described marketing arrangements used in the livestock and meat industries and qualitatively the reasons why they are used.

In the final report for the study, we analyzed (1) the extent of use of alternative marketing arrangements, price differences across marketing arrangements, and the effects of using marketing arrangements on cash market prices; (2) the costs and benefits of various marketing arrangements, particularly as they relate to quality, costs of production, and risk; and (3) the implications of using marketing arrangements on livestock producers, meat packers, and consumers. We used state-of-the-art economic modeling and statistical analysis methods to address the requirements of the study with the following types of data:

an industry survey of livestock producers, meat packers, meat processors, retailers, wholesaler,

food service operators, and exporters;
purchase and sales transactions data collected from meat packers and meat processors (2.5 years of data, from October 2002 through March 2005);
profit and loss data from meat packers (also 2.5 years of data)
results of industry interviews with producers, packers, and meat buyers;
Mandatory Price Reporting (MPR) data; and
? other publicly available data. Note that the industry survey was a statistically designed sample and included responses from 293 beef producers, 229 hog producers, and 302 lamb producers. The transactions data for beef represented 58 million head of fed cattle purchased by 29 beef plants, and the transactions data for pork represented 190 million head of finished hogs purchased by 29 pork plants.

In general, the study found that use of alternative marketing arrangements in the livestock and meat industries provides benefits not only to meat packers but also to livestock producers and meat consumers. Therefore, restricting their use would have negative economic consequences on most segments of the industry. Next, I would like to give a broad overview of the specific results of the study organized along the six central questions for the study.

The first question concerned what types of marketing arrangements are used and the extent of their use. Based on the data available for the study, we estimated that alternative marketing arrangements represent 38% of the volume for fed cattle, 89% of the volume for finished hogs, and 44% of the volume for fed lambs sold to packers. Furthermore, we estimated that packer ownership volumes represent less than 5% of fed cattle and fed lamb volumes and 20 to 30% for finished hogs.

In the beef industry, fed cattle are sold primarily through the cash market (specifically, direct trade) and marketing agreements. Based on the industry survey and interviews we conducted, we expect alternative marketing arrangement use in the beef industry to remain at similar levels in the near term. In the pork industry, finished hogs are sold using a large number of methods, including direct trade, marketing contracts (highest), marketing agreements, and packer ownership (packer-owned farms and production contracts with packers). Based on the industry survey and interviews we conducted, we expect alternative marketing arrangement use in the pork industry to remain at similar levels in the near term. Finally, in the lamb industry, fed lambs are sold primarily through auctions and marketing agreements, but custom feeding and/or slaughter is also significant. Based on the industry survey and interviews we conducted, we expect a moderate increase in the use of alternative marketing arrangements in the lamb industry in the near term. Note that, across all species, most packers and many producers use portfolios, or combinations, of marketing arrangements rather than a single type.

In discussing the next five key study questions, I will focus primarily on beef and pork, but I will say a few words about the lamb industry at the end.

The second question concerned the price differences across marketing arrangements, and whether the use of alternative marketing arrangements affects cash market prices. In the beef industry, prices for fed cattle (for a given level of quality and controlling for seasonality) are similar for direct trade and marketing agreements, higher for the small percentage of auction barn cattle, and lower for the small percentage of forward contract cattle. We found that a 10%

reduction in the volume of spot market transactions, assuming that volume is shifted into alternative marketing arrangements, results in an extremely small decrease in the spot market price of 0.1%. In the pork industry, prices for finished hogs (when controlling for differences in quality and seasonality) are higher for marketing contracts and lower for packer-owned hogs relative to the cash market. We found a relatively large effect of using alternative marketing arrangements on cash market prices for hogs. A 1% increase in hogs under contract is associated with almost a 0.9% decrease in cash market prices. We believe this estimate is this high because alternative marketing arrangements already comprise 89% of the volume of finished hogs sold; thus, a further increase from this high percentage causes a large effect on the cash market price. In addition, we found that a 1% increase in hogs under packer ownership is associated with a 0.3% decrease in cash market prices.

The third question concerned the effects of alternative marketing arrangements on costs of production at the packer level, that is, on costs other than the cost of purchasing livestock. In the beef industry, procurement of cattle through alternative marketing arrangements is associated with lower production costs per head than through cash markets, but this result does not hold for all packing plants. The estimated average cost savings are $6.50 per head, compared with an average processing cost of about $138 per head (or about 5%). In the pork industry, procurement of hogs through alternative marketing arrangements is associated with an extremely small decrease in production costs. Specifically, a 1% increase in alternative marketing arrangement use is associated with an extremely small decrease in marginal costs at the sample means because alternative marketing arrangement use is already extremely high.

The fourth question we analyzed was whether and how the quality of livestock and meat varies across marketing arrangements. In the beef industry, we found that cattle sold through marketing agreements, the primary alternative marketing arrangement, were higher quality and had less variation in quality than cattle sold through direct trade. Specifically, the increase in quality for marketing agreement cattle relative to direct trade cattle is equivalent to a 57 cent per cwt increase in value. It is also notable that the small percentage of sales through auctions was associated not only with the highest quality but also the highest variation in quality; this is likely due to specialty sales in particular regions of the country. In the pork industry, we found that hogs sold through marketing contracts, the primary alternative marketing arrangement, were higher quality than hogs sold through direct trade. Marketing contract hogs ranked higher across multiple quality measures, such as average lean percentage, loin-eye area, and average loin depth, compared with other types of marketing arrangements.

The fifth question we analyzed was how risk, particularly market access risk and price risk, varies across marketing arrangements Across all species, alternative marketing arrangements offer some guarantee of market access, for both livestock producers and meat packers. That is, alternative marketing arrangements ensure that producers can sell livestock and meat packers can purchase livestock when they need to for their business operations. In the beef industry, prices for cattle sold through marketing agreements, the primary alternative marketing arrangement, were less variable than for cattle sold through direct trade. Specifically, the variance of prices for marketing-agreement cattle was 18 to 20% less than for direct-trade cattle when controlling for differences in quality. Auction barn and forward contract cattle were associated with the highest levels of price risk for fed cattle. In the pork industry, prices for hogs sold through marketing contracts, the primary alternative marketing arrangement, had lower variance than hogs sold through direct trade. The variance of prices for hogs sold through marketing contracts was 5 to 45% less than for hogs sold through direct trade (but not controlled for differences in quality). Furthermore, in the pork industry, use of production contracts for hog producers eliminates about 94% of the producer income volatility compared with independent hog producers. Risk-averse producers, in particular, benefit from the availability of production contracts.

The final question we analyzed concerned the potential effects of restricting alternative marketing arrangements on livestock producers, meat packers, and consumers. We conducted simulations of various hypothetical scenarios in which alternative marketing arrangements were restricted. In general, these simulations indicate losses to livestock producers and consumers due to losses in efficiencies in the market. These losses in efficiencies translate into higher prices for consumers purchasing meat and lower prices for producers selling livestock. Specifically, in the beef industry, eliminating alternative marketing arrangements would cause livestock producers and feeders, beef packers, and consumers to lose economic surplus. Our beef industry model indicates that over 10 years, eliminating alternative marketing arrangements in the beef industry would reduce economic surplus by 5 to 16% for each sector of the industry. Even if you assume some level of market power exists in the industry, and that elimination of alternative marketing arrangements would eliminate the market power, all sectors of the industry still lose economic surplus, but the losses are slightly smaller. In the pork industry, one of the scenarios we considered was increasing the cash market share to 25%, from its current 11%. Our pork industry model indicates that this restriction would cause hog producers and pork consumers to lose economic surplus, but that pork packers would be affected very little. Our specific estimates are that, over 10 years, increasing the cash market share to 25% would reduce economic surplus by 3 to 5% for hog producers and pork consumers, but slightly increase economic surplus for pork packers. Reducing alternative marketing arrangement use benefits producers to some degree because of a reduction in market power by pork packers, but the loss in cost efficiencies offsets the effects of reduced market power.

To return to the results for the lamb industry, we found the results of analyses to be relatively similar to the results for the beef industry described above with a couple of notable differences. Specifically, we found that prices of fed lambs sold on the cash market are slightly higher than other methods, and use of alternative marketing arrangements does not appear to reduce price risk. However, procurement of lambs through alternative marketing arrangements is associated with lower production costs and higher quality.

In conclusion, use of alternative marketing arrangements in the livestock and meat industries provides benefits not only to meat packers but also to livestock producers and meat consumers. Restricting their use would have negative economic consequences on most segments of the industry. Across the scenarios analyzed, livestock producers would have greater economic losses due to restrictions than packers. However, it is also important to note that the cash market serves an important role in the industry, particularly for smaller producers and packers. Reported cash prices are frequently used as the base for formula pricing under, and thus are important for, any type of marketing arrangement that uses formula pricing.

Mr. Chairman, I would like to enter into the record Volume 1 of the report for the Livestock and Meat Marketing Study. This volume contains the executive summary and overview for the study. Thank you.