

June 6, 2013

## **Change Request for Generic Testing Docket 0535-0248**

### **Prices Paid (0535-0003) Testing**

#### **Background**

In 2011, the NASS Price Program Methodology was documented in detail. As part of the program review, NASS consulted many statistical organizations on price and price index methodology, including the Bureau of Labor Statistics, the Department of Commerce, the Bureau of Economic Analysis, and price index methodologies in Canada, Australia, the European Union, and the Food and Agricultural Organization (FAO) of the United Nations.

#### **Change Request**

NASS is submitting this non-substantive change request for the Generic Testing Docket (0535-0248). NASS plans to conduct several exploratory interviews of manufacturers of farm machinery and farm feeds.

If successful, a manufacturer's survey would replace the ongoing annual retail farm machinery dealer and feed sales surveys, which have a combined sample size of 4,100, conducted in April. Currently, there are 7 primary farm machinery manufacturers and 5 primary feed producers in the United States. These farm machinery and feed price data are used in calculating the Agricultural Prices Paid Index. By collecting data at the manufacturing level, we would reduce reporting burden for retail dealers, plus provide a more consistent indication of real price changes for the Prices Paid Index.

Since the number of manufacturers of farm machinery and farm feed are small in number but have such a large market share, we used personal knowledge of NASS staff to select the major manufacturers. NASS confidentiality will apply to data and the discussion. Success would be determined more specifically by the coverage of market share of the manufacturers responding, in addition to more refined index data, such as more item-specific data (such as brand, model, etc.) than what we currently survey, which are definitions of price relative index methodology. Weights such as volume or sales percentages applied to retail prices would also be an improvement over survey data, and would be considered a success.

By July 1, 2013, we plan an initial visit of 2 or 3 farm machinery manufacturers and 2 or 3 feed manufacturers to determine if collecting price change data at the production level is

possible. If successful, we plan on developing a test questionnaire and submitting it to OMB as a non-substantive change to the Generic Testing docket that we hope to implement in April, 2014. Thoughts about the new data collection strategy began at the February 2013 Farm Machinery Show when company representatives said their companies would want to discuss that data collection strategy.

Because of the complex price markets for farm inputs and limited data collection resources, collecting price change data from manufacturers has a much better potential to ensure price coverage, consistency, and a sounder index methodology. The 2009 Review of the USDA NASS Price Program by the Council of Food, Agriculture, and Resource Economics (C-FARE) recognized these challenges and recommended four key changes in the NASS Prices Paid Survey. Details of the shortcomings of the current retailer-based sample to measure price changes are discussed. The report can be found at:

[http://www.cfare.org/reviews/CFARE\\_NASS\\_FULL\\_BOOK\\_email.pdf](http://www.cfare.org/reviews/CFARE_NASS_FULL_BOOK_email.pdf)

NASS is mandated in the Agricultural Adjustment Act of 1938 and subsequent amendments to prepare indexes to measure the change in prices farmers pay for inputs and prices farmers receive for commodities produced and sold. The Prices Paid Index is invaluable in supporting agricultural policy and for information in market trend analysis.

Farm Machinery Information needed to construct the Prices Paid Index include:

- 1) Relative values of machinery items and categories
- 2) Consistent data to measure price change
- 3) Appropriate timeframe for obtaining data
- 4) Keeping categorical items comparable over time to represent the entire group
- 5) Ability to measure technological price change
- 6) Ability to account for optional equipment becoming in base model price
- 7) Ability to measure changes in optional equipment pricing.

Feed Information needed to construct the Prices Paid Index includes:

- 1) Relative values of feed items and categories
- 2) Appropriate timeframe for obtaining data
- 3) Keeping categorical items comparable over time to represent the entire group
- 4) Ability to measure technological price change
- 5) Consistent data to measure price change
- 6) Best measure of price change – complete feeds or individual ingredients

If successful, farm machinery and feed price change data from manufacturers instead of retailers would improve data quality, coverage, provide a more sound methodology, and significantly reduce annual respondent burden. Both NASS and the agricultural industry would benefit greatly. This test will involve approximately 6 respondents and 24 hours of respondent burden (approximately 4 hours per respondent). If the respondent(s) will agree to the interviews, NASS will expand upon the profile-like data questions above to get information on volume and sales weights, timing of data, retail margins, changes in product quality, specific types of models and product specifications, and product replacements.

### **Prices Paid Exploratory Interviews (overview)**

1. NASS will begin by introducing ourselves to the manufacturers and discuss our Mission Statement and the primary uses of our data by other government agencies, the American farmer and other data users.
2. We will then give a short history of the Prices Paid Survey program and describe where we plan to improve the program for the future.
3. Next, we will give a short description of why we are seeking to improve calculations and methodology for the Prices Paid Index.
4. We will then have an open ended discussion with the manufacturers to see if they can provide NASS with any information that will be useful in generating the indexes.

The data collected at the manufacturer's level would be used to replace the annual survey, and the timeframe would be sometime in the first quarter of each year. The farm machinery outline was the only category where we could even estimate types of questions to ask because this project is so exploratory in nature. Estimated general times are 1 hour for introduction to index methodology and our program, 1 hour for discussing weights and data collection at the company, and 1 hour for discussing product specifics such as seasonal sales, item specifics, and the retail markets.

By providing general information of what information we need about price change data; we will let the respondents designate their most suited employees to provide the data, most likely sales analysts. A NASS mathematical statistician who was previously in a survey methodologist position has estimated the timing of the general discussion, but since we do not know enough details of the industry to develop a solid questionnaire, an estimate is the best information available. Commodity statisticians here in NASS will be involved in the interviews so they will be able to adjust the conversation to fit with the information each respondent provides. Based on the information we obtain in these exploratory interviews we may need to conduct a second round of testing using cognitive interviews to test actual questionnaires. If the second round of testing is necessary we will request that at some time in the future.

## **Summary**

Ultimately we would like to be able to reduce respondent burden on thousands of retailers of farm machinery and farm feeds, by collecting data from the manufacturers. The open exploratory interview will allow NASS to see if there are any alternative means by which we can collect price data.