

# National Agricultural Research, Extension, Education and Economics Advisory Board

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## **A REPORT ON THE IMPACTS OF NATIONAL AGRICULTURAL STATISTICS SERVICE (NASS) REPORTS ON GRAIN MARKET VOLATILITY**

**Developed from Presentations and Discussions at the Fall 2011 Meeting of the  
National Agricultural Research Education, Extension & Economic Advisory Board  
(NAREEE)**

**August 2012**

On November 8-9, 2011, the NAREEE Board held its biannual meeting in Washington, D.C. One of the major focus session topics was The Impacts of NASS Reports on Grain Market Volatility. This is a topic of longstanding concern with a wide array of stakeholder groups as well as within the agency itself. Terry Wolf, NAREEE Board member, provided the leadership in putting together the discussion panel for the meeting. The following is a synopsis of the issues and concerns expressed by the panelists, along with inputs and responses from Board members.

Terry Wolf introduced the session by outlining recent trends in food prices which reflected a steady increase from 2002-2006, followed by a sudden spike 2007-2008 and another surge 2010-2011. He indicated variables affecting these changes including growth in global population, growth in per capita incomes, depreciation of the U.S. dollar, slower growth in agricultural productivity and a continued shift from food to bio-fuel production. However, he also pointed out predictions from NASS reports on acres planted and crops harvested have been subject to question and increased concern about their influence on commodity prices.

Following Wolf's introduction, Joseph Prusacki, Director, Statistics Division of NASS noted that NASS currently produces 500 national statistical reports each year, plus another 9,000 state level reports. He pointed out the importance of these reports on domestic and international markets. He also suggested that the voluntary reporting systems contribute to variability among reports. Another complicating factor is that the reports are driven by current due dates which hinders

response to realities on the ground (weather, etc.). Since the NASS numbers are the official USDA numbers as put forth from the Secretary, questions will always be present when there are deviations from expectations or outcomes.

Doris Mold, Chair, Advisory Committee on Agricultural Statistics (ACAS) agreed that NASS reports can contribute to market volatility. She noted that NASS reports and private forecasts are developed from different sources, using different techniques and for different purposes, implying the near impossible task of seeing the same expectations and outcomes from differing sampling processes. ACAS has recommended that NASS consider reducing the frequency of its reports rather than eliminating them as a mechanism of dealing with current challenges of cuts in funding and manpower. ACAS has also recommended a move in the direction of reducing the burden on survey respondents. It further states that it is critical that NASS deal effectively with the confidentiality of data, although this issue is complex due to other mandates dealing with public access to government records. ACAS also pointed out concerns with loss of agricultural land and the special needs of Native American and Alaskan Native farmers and ranchers.

Mike Mock, a risk management consultant with The Andersons, Inc. told the Board that market volatility is heavily affected by the "black box" issue of electronic trading which can be as much by rumor as data. However, he suggested that NASS reports may be ill timed. Further, he suggested some reports should be dropped. New technologies, including remote sensing of crop areas, could perhaps improve accuracy. He also pointed out that other externalities such as new and emerging uses of bioproducts could also impact the accuracy of reports.

Dave Lyons, Vice President for Government Relations at the Dreyfus Group, agreed that price volatility is the result of market conditions but tighter stocks and other market changes can exaggerate that volatility. He stated that the collection and dissemination of accurate data is a proper role of government, given that producers, processors and buyers all depend on those numbers. NASS needs to remain totally dedicated to providing accurate data to the best of their ability. He also suggested that some NASS reports need to be eliminated or rescheduled.

Dr. Harry Vrooman, Vice President for Economic Services, The Fertilizer Institute, told the Board that NASS yield data is widely used and that those estimates can drive price changes. However, he said that NASS estimates are repeatedly corrected and for the past 12 years there has been a positive match between forecasts and outcomes. Recent discrepancies are a deviation from the trend and that, in the future, NASS should adjust its yield forecast more frequently while remaining objective.

Mary Wilson, Director of Ag-Biotech Operations, Pioneer Hi-Bred, provided a historical perspective which supported the fact that farmers respond to higher prices by planting more acres and that triggers other changes in the demand/supply arena. Given that seed research has reduced the breeding cycle to about seven years and the industry has responded by expanding the geographic ranges, it will be a challenge for NASS to track new producers and thus obtain

contemporary data. In more marginal areas, issues like weather become more critical. Nevertheless, the industry needs NASS to respond with increased accuracy and specificity of data and projections.

The Board discussed all of these inputs from the panel and NASS. A number of issues were raised as a result of that discussion.

In May of 2012, NASS provided the Board with comments and recommendations based on the discussions noted above. Following is a quote on volatility in grain markets from their comments:

“Current grain market volatility is associated with the relatively tight supply given the increasing demand of grains and oilseeds. NASS issues several reports on grain and oilseeds that are heavily referenced by the commodity markets – a report in March that provides planting intentions; a report in June that estimates planted crop acreage; reports in August, September, October, and November that forecast agricultural production; and a final report in January that estimates agricultural production. The report that has most often been singled out for concern is the August report. This report is early in the season, relies on farmer reports, and early field measurement samples. Later reports, September and October, incorporate program data from the Farm Services Agency and have more informative farmer survey data and field measurement samples.

Since 2010, the corn market has been extremely volatile and some suggest that NASS reports are major contributor. Price volatility can be expected in any market and is a function of supply, demand, and market efficiency. In recent years, corn production has been at or near record high levels. During this same period, demand for corn has also been at or near record high levels. Consequently, end-of-year stocks of corn have been relatively small. This has caused an extremely volatile market where prices become highly sensitive to small shocks. A shock includes additional information, such as NASS reports, for the market. So, when the expectations of the market participants differs from NASS reports this is a shock and leads to changes in prices. The combination of tight old-crop stocks and new information are key ingredients for a volatile market.”

Also in their report, they highlighted ways in which they have responded to inputs from the meeting and the panel discussion. These responses indicated initiation of survey and estimating procedures which will minimize sampling variability and bias. NASS has identified several actions that will either reduce or measure this variability or bias. In addition, they have linked these actions to recommendations of the National Academy of Science's Committee on National Statistics' publication, *Principles and Practices of Federal Statistics Agencies, 2009*.

Based on these inputs, the NAREEE Board has the following recommendations:

- 1. Recommend that, first and foremost, NASS continue to enhance its statistical research program and to assure that it interacts with the statistical research scientific community to stay in the forefront of developing techniques and capabilities. The Board recognizes that NASS has an almost impossible task if viewed as trying to please highly diverse and sometimes competing interests. It is imperative that the agency be strong in its scientific integrity and protection from bias.**
- 2. Recommend that NASS review the data available from its measurement surveys to determine whether additional collected information could be published and to determine whether maturity or other information from the surveys or models used to forecast grain weights could be published.**
- 3. Recommend that, even in difficult times, USDA work to provide NASS with the appropriate level of funding to support its work, recognizing that the products from the agency have huge economic impacts nationally and internationally.**
- 4. Recommend that NASS seek support from other USDA entities to encourage farm organizations and user groups to make their memberships aware of the importance of timely and complete reporting of requested information. NASS needs to provide these groups with the background on the importance and uses of these data to insure a robust agricultural industry in the United States.**
- 5. Recommend that NASS be totally transparent in its procedures and the rationale for the information they require and use. Further recommend that NASS be invited to provide an update on this topic to the NAREEE Advisory Board after a two year period so that the Board can be supportive of the important NASS mission.**
- 6. Recommend that NASS continue and strengthen the interaction with ACAS. This can be coupled with expanded formal inputs from stakeholders and other interest groups. This will greatly aid NASS in telling its story and demonstrating the effectiveness of its efforts. Key industry representatives and organizations need to be included in these discussions.**
- 7. Recommend that NASS develop a rapid response strategy so that they can respond to critical changes and challenges such as the drought occurring in the U.S. this year to bring more accurate information to the market in a timely manner.**

**Report Developed by the NAREEE Advisory Board –  
Fall 2011 Meeting Working Group**

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**Terry Wolf**, Owner, Wolf Farms & Wolf Grain Systems, Inc.