<u>Cost-Benefit Analysis of USDA Market Development Programs August 2016</u>

Introduction:

USDA/FAS cooperator organizations U.S. Wheat Associates, USA Poultry and Egg Export Council and Pear Bureau Northwest co-managed a Global Broad-Based Initiative project to measure: (1) the impact of MAP, FMD and industry investments on U.S. agricultural exports and (2) the broader effects on the U.S. farm and general economies.

Informa Economics was selected to direct the study, the third analysis of USDA market development programs since 2002. Agricultural economists from Texas A & M University, the University of Oregon and Cornell University conducted the analysis.

This analysis employed a completely different methodology than prior studies to demonstrate that the results were not influenced by using the same analytical method repeatedly, and to establish a new baseline of direct returns on export value, farm income and assets, and general economic indicators from the market development programs. The two prior studies employed an econometric model that measured market share effects. This 2016 study, however, employed a different approach through export demand analysis to measure the impact of market development programs[i].

Key Conclusions:

USDA Market Development programs continue to achieve what Congress intended when they were created to:

- Boost agricultural export revenue and volume;
- Support farm income; and
- Enhance the overall U.S. economy.

Programs generate high rate of Return on Investment.

- U.S. food and agricultural export value increased by $24 for every dollar invested by government and industry in export market development (2002-2014).
- The 2010 study was also updated and the BCR was found to be $32, somewhat below the 2010 study's result of $35 and still above the 2007 study's result of $25.
- The estimated benefit-cost ratio (BCR) in this study though somewhat different than found in the previous study, stands alone as an export demand result, but like the previous studies, the BCR is still well above the average BCR of $10.8 reported by other export promotion program studies.
- Such high BCRs indicate the programs are very effective; they also suggest the programs are underfunded.

Multiple measures are needed to provide a comprehensive evaluation of USDA market development program effectiveness.

- While BCRs are commonly used to determine the effectiveness of programs, they do not consider the overall scale of a program's impact.
- Analyzing other measures, such as changes in export revenues, farm income, GDP, etc., in conjunction with BCRs provides a more comprehensive understanding of the full impact of market development programs.

[i] Market share effects were modeled separately as an addendum to this comprehensive analysis. The market share effects in 2016 were only slightly different than those measured in the 2010 study.

In addition to a high BCR, the new report indicates that the USDA Market Development Programs also:

Boost export revenues, volumes and prices.

- Adding $12.5 billion on average annually to export value from 2002-2014 and adding $8.15 billion on average annually, to export value from 1977-2014.
- Adding $162.5 billion, 14.3 percent, in agricultural export revenues over the entire 2002-2014 period and a total of $309.7 billion more, 15.3 percent over the 1977-2014 period than would have been generated without the programs.

Contribute substantially to the rural economy.

- The programs enhanced the annual average level of U.S. farm cash receipts by $8.4 billion and farm income by $2.1 billion assuming less than full employment (2002- 2014).
- The programs also added $8.7 billion to farm cash receipts and $1.1 billion to farm income assuming full employment (2002-2014).

Benefit the overall macro economy.

- The programs added $7.1 billion in economic output and $4.4 billion in GDP in each year assuming full employment and $39.3 billion in economic output and $16.9 billion in GDP assuming less than full-employment (2002-2014).

Create jobs.

- Up to 239,800 full and part-time jobs have been added by the programs across the entire economy assuming less than full employment, reducing unemployment by up to 3% (2002-2014).

Significant impacts occur with changes in future market promotion funding.

- Elimination of MAP and FMD funding results in:
  - Exports declining $14.7 billion on average annually (2015-2030).
  - Farm cash receipts and GDP respectively falling annually $7.0 billion and $2.6 billion assuming full employment and respectively $9.9 billion and $19.5 billion assuming less than full employment.
- Increasing government funding by 50% results in:
  - Exports rising $3.5 billion annually (2015-2030).
  - Farm cash receipts and GDP respectively increasing annually $1.7 billion and $0.6 billion assuming full employment and $2.4 billion and $4.7 billion assuming less than full employment.

Impact of funding changes would be most significant in Midwest.

- The Midwest will experience the greatest impacts because the region produces the largest share of exported agricultural output (by dollar value), with lesser impacts in other regions.

MAP and FMD programs are vital to program participants.

- Interviews of FMD and MAP participants indicate the programs have substantial, beneficial effects on the export markets for their commodities, and are critical for opening new markets and responding to trade disruptions.