

AAD Evaluation of the “Producer Return on Investments in Soybeans Research, Promotion, And Information: An Updated Analysis” by Dr. Harry Kaiser, Cornell University

The United Soybean Checkoff Program Board (USCP) administers the research and promotion program for soybeans. The program’s goal is to increase the health and competitiveness of the industry through a set of marketing, promotion, and education programs, thereby providing U.S. producers with expanding markets for their commodity. Under the *Soybean Promotion, Research and Consumer Information Act of 1990*, soybean producers are required to pay 0.5% of the market price of each bushel of soybeans sold to fund demand- and supply-enhancing promotion and research, with 50% of the proceeds funding the United Soybean Board (USB), the national soybean organization created to carry out these promotion and research activities. Along with USB, the other 50% of funds raised by this mandatory checkoff program are used to fund Qualified State Soybean Board (QSSB) organizations.

Under existing agricultural legislation, the USCP is required to have an independent analysis of the economic effectiveness of the program conducted at least once every five years. Agricultural Marketing Service (AMS) standard operating procedures state that this analysis must have a credible methodology and results, articulate shareholder benefits, and present results in a non-technical manner. AMS standard operating procedures also direct the agency to formally review the findings of the analysis; for this analysis, the Agricultural Analytics Division (AAD) has been assigned the review.

To conduct this analysis, USCP contracted with Dr. Harry Kaiser of Cornell University. Dr. Keiser has conducted a previous checkoff fund evaluation for pork.

The overall goal of the analysis was to independently evaluate the economic effectiveness of the programs funded by the USCP. Specifically, this analysis had two important objectives: (1) determining whether USB-funded activities increased consumption and production of soybeans and soy products in the U.S. and foreign markets; (2) measuring the benefits of USB activities in terms of incremental industry profitability and comparing them with the cost of the checkoff to calculate a rate of return on investment to its stakeholders.

AAD has reviewed the analysis and concludes that the analysis was generally well-specified, used appropriate data and statistical techniques and draws reasonable conclusions from the statistical results. The analysis addresses the two objectives by measuring the economic impact of checkoff activities on the domestic supply and demand, and the export demand of soybeans, soybean meal and soybean oil. The individual components were then brought together into an analytical system through an equilibrium displacement model. From this process, elasticities of demand were determined, which represent the change in producer profitability due to a one percent change in checkoff-funded expenditures.

Four different types of checkoff-funded activities were considered: (1) domestic promotion; (2) foreign promotion; (3) research on enhancing the domestic market demand; and (4) research on increasing production. Of the four activities, demand-enhancing research provided the largest return on investment at 18.18 percent, or \$18.18 in additional producer profits for every \$1.00 of

checkoff funds spent on this activity for the five-year period of 2014-2018. Activities aimed at enhancing domestic demand had the lowest return on investment, with a 4.2 percent return on investment, or \$4.20 in additional profits for every \$1.00 spent on this activity. The average over all four activities was \$12.34 in increased profits for the five-year period of 2014-2018 for each \$1.00 in checkoff funds spent.

However, the author is careful to point out that these results are somewhat of an over-estimate of the true returns on investment from the checkoff funds, as the activities of private firms and government entities have not been included in the analysis due to lack of available data.

Conclusions and Recommendations

Overall, the analysis appears to be well specified and the results seem reasonable. It also appears to be well documented. While the statistical analysis is necessarily of a technical form, it is presented clearly and has a nontechnical executive summary included at the start of the document. The report provides net returns (benefit-cost ratios) for different expenditure categories but does not include a sensitivity analysis for them. Such an analysis would provide the reader an idea of the robustness of the findings.

More importantly, a brief review of previous checkoff evaluations would have been helpful in providing some context for the analytical results. Some mention of previous studies was made in the footnotes, but a more clear comparison would have been beneficial to the reader.