



TOPIC BRIEF SUSTAINABILITY

BEEF RESEARCH

The U.S. Beef Industry Sustainability Assessment: Phase 1 versus Phase 2

A sustainable beef industry is critically important as we work toward the goal of feeding more than 9 billion people by the year 2050. Experts estimate that this future global population will require 70 percent more food with fewer available resources. The goals of this study were to expand the original (phase 1) beef industry sustainability assessment to more accurately benchmark the eco-efficiency of the U.S. beef industry as part of an ongoing study of the U.S. beef industry funded by the Beef Checkoff Program. Phase 1 established a historical perspective of the eco-efficiency of the U.S. beef industry and considered specific on-farm data from the largest research farm in the U.S. combined with post-farm data that is representative of the entire U.S. beef industry. Phase 2 built upon the Phase 1 base case study for the year 2011 and includes refined data, additional datasets, and an expanded focus of the beef value chain for data that is representative of the period between 2011 and 2013.

Major specific changes or additions to the Phase 1 base case study that are reflected in the Phase 2 study include:

- updated farm-level data for the U.S. Meat Animal Research Center (USMARC) that refines segregation of impacts at the actual cattle phases (Phase 1 represented total cattle impacts at the cattle phase. Phase 2 updates that data to segregate impacts according to actual operations at the USMARC facility and are represented according to the cow-calf operations and feedlot, which includes integrated backgrounding.),
- expanded aggregated data into the case-ready sector analysis from an additional case-ready partner,
- replacement of literature average data in the retail sector phase analysis to now include primary data from retail partners,
- expansion of the study to include the restaurant sector with addition of primary industry data from restaurant partners, and
- value chain scenario analysis using farm data from Pennsylvania grass-finished systems.

Phase 2 is considered to be a baseline study for the industry of current practices. There is no historical comparison as was completed in Phase 1 because historical data were not available for much of the expanded data considered in Phase 2. Future research is already underway to better understand regional differences in the feed and cattle phase as well as to gather more specific data points to obtain an even higher quality dataset for ongoing measurement and improvement of the U.S. beef industry.

The study will continue over the next few years in order to compile a complete aggregated national farm-level dataset that will consider all major beef producing regions in the U.S. Additionally, future data for the industry will continue to be collected and analyzed to better understand the changes that occur within the sustainability profile of the industry, to pinpoint opportunities for impact reduction across the industry, and to drive the sustainability performance of the U.S. beef industry.



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