

New research will help beef industry increase sustainability

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U of A researchers are studying every step of producing of beef, from growing feed to processing meat, in order to help the industry increase sustainability.
Credit: University of Arkansas

Researchers at the University of Arkansas are conducting a lifecycle

analysis of the beef industry—an in-depth look at all the factors that go into producing beef products—in order to identify ways the industry can increase sustainability and to assess how much the industry has improved over the past decade.

"Beef production is a major contributor to greenhouse gas emissions," said Marty Matlock, executive director of the University of Arkansas Office of Sustainability. "Increasing the sustainability of this process could have a significant [impact](#) on [climate change](#)."

The research team includes Matlock, professor of biological and agricultural engineering; Jennie Popp, associate dean of the Honors College and professor of agricultural economics and agricultural business; and Greg Thoma, professor of chemical engineering. They are working with the National Cattlemen's Beef Association and the U.S. Roundtable for Sustainable Beef to analyze production practice impacts and develop recommendations to improve sustainability.

The researchers are using computer models to explore the environmental impacts of every step of the beef production process, from growing the feed, through the raising of cattle, to the processing of the meat. This analysis will allow them to identify a set of practices that will have the greatest impact on reducing greenhouse gas emissions.

In addition to identifying opportunities for improvement, the lifecycle analysis will give the researchers a detailed picture of how beef production is currently affecting [greenhouse gas emissions](#). Similar analyses were conducted by the National Cattlemen's Beef Association five years ago. By comparing their results to these studies, the researchers will be able to quantify the effects of the practices that were implemented as a result of the previous studies.

"Understanding the impact of [beef](#) production on climate change is a

priority for the [beef industry](#)," said Matlock. "They want to improve efficiency and reduce impacts in a way that is driven by outcomes and informed by science."

Matlock explained that this study is just the latest example of the central role the University of Arkansas plays in developing national and international frameworks and metrics to increase [sustainability](#), especially in the areas of agriculture and urban development.

"Where we live and what we eat, those two things determine our impact on this planet," Matlock explained. "Our team has developed many of the foundational procedures for looking at these issues, and have been doing it a long time."

Provided by University of Arkansas

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