

Individual animal identification and traceability within the beef industry can be important for verification of animal health as well as marketing purposes. However, this issue has been highly scrutinized because current U.S. systems lack a clear identity, and in turn, the functions served by the systems have been less successful than initially intended.

The administration of the USDA previously tried to implement the National Animal Identification System (NAIS); however, participation in NAIS was less than desired. As a result, efforts began in 2010 to implement an individual animal identification and traceability program in the United States with a more flexible framework. However, challenges still exist in taking the views of beef industry participants into consideration when attempting to implement these systems.

To assess the beliefs regarding traceability of cow-calf producers (important first players in the beef supply chain who are crucial for full live-animal traceability) a recent project examined the link between cow-calf producer participation in NAIS and their perceptions of traceability.¹ More specifically, this project involved: determining what kind of producers registered their premises in NAIS, identifying what producers felt were the most important functions a traceability system should serve, and identifying concerns and views that may cause nonparticipation. This publication summarizes the results of that study. More details and published academic research papers from this study are available at www.agmanager.info.

Procedures

A national survey of cow-calf producers was used to provide the producer-level data necessary for analysis. In collaboration with BEEF magazine, 609 cow-calf producers throughout the United States were surveyed.² Producers were asked:

- ¹ This research was primarily conducted as a graduate research project when Schulz was a student and Tonsor was a faculty member in the Department of Agricultural, Food, and Resource Economics at Michigan State University.
- ² Several survey summary statistics on issues not discussed in this publication are available to interested parties in an article published by BEEF magazine at <http://beefmagazine.com/beef-quality/0801-survey-id-feedback/>.

- 1) Are your operation's premise(s) currently registered with USDA in NAIS (National Animal Identification System)? Yes or No.
- 2) In designing a national, individual animal traceability system, how important is the following issue in the U.S. beef industry (1 = Entirely Unimportant ... 5 = Very Important)?
 - Increasing consumer confidence
- 3) In designing a national, individual animal traceability system how concerned are you regarding the following issue in the U.S. beef industry (1 = Entirely Unconcerned ... 5 = Very Concerned)?
 - Cost to participating producer
- 4) Indicate your level of agreement with the following statement (Where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).
 - Implementing individual animal traceability systems is unnecessary if COOL (Country-of-Origin Labeling) was implemented nationally.

A series of models were used to evaluate how cow-calf producer demographics and production practices influenced their choices regarding premises registration in NAIS and their perceptions, concerns, and views regarding an individual animal traceability system.

Results

NAIS premise registrations

- Premise registration rates were relatively low (38.4 percent), which was consistent with USDA estimates.
- Membership in National Cattlemen's Beef Association (NCBA) increased the likelihood of producers registering their premises by 8.7 percent, while membership in Ranchers and Cattlemen's Action Legal Fund (RCALF) decreased the likelihood of producers registering their premises by 7.1 percent.
- Producers with a college degree were 33.2 percent more likely to have their premises registered.
- Producers who believed NAIS should be mandatory were 18.2 percent more likely to have premises registered.

- Producers using local auctions to market their cattle were 18.7 percent less likely to have their premises registered.
- Individual and group identification on premises increased the likelihood of NAIS premise registration by 37.3 percent and 12.6 percent, respectively, while no identification on premises decreased the likelihood of NAIS premise registration by 13.1 percent.

Issues when implementing traceability systems

Increasing consumer confidence

- Increasing consumer confidence was seen as *important* by more than 67.0 percent of producers.
- RCALF members were 1.8 percent less likely to respond that traceability is *very important*.
- Producers with premises registered in NAIS were 3.7 percent less likely to respond that traceability is *very important*.
- Producers using local auctions to market cattle were 4.4 percent less likely to respond that traceability is *very important*.

Concerns when implementing traceability systems

Cost to the participating producers

- Cost to participating producers was of strong concern to 65.7 percent of producers.
- NCBA members were 4.7 percent more likely to respond as being *very concerned*; while RCALF members were 23.3 percent more likely to respond as being *very concerned*.
- Producers using local auctions to market cattle were 12.8 percent more likely to respond as being *very concerned*.
- For each additional 100 head of cattle, producers were 4.8 percent more likely to respond as being *very concerned*.

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Implementing individual animal traceability systems is unnecessary if country of origin labeling (COOL) was implemented nationally.

- 49.2 percent of cow-calf producers believe COOL is more important than a traceability system.
- NCBA members were 21.5 percent less likely to agree that traceability is unneeded if COOL was implemented. On the other hand, RCALF members were 9.0 percent more likely to agree that traceability is unneeded if COOL were implemented.
- Producers using individual and group identification were 9.1 percent and 3.5 percent, respectively, less likely to agree; while producers not using animal identification were 2.4 percent more likely to agree.

Summary

As animal identification and traceability programs become more important for serving multiple functions within the U.S. beef industry, it becomes imperative for entities charged with administration of these programs to be proactive in giving an identity to existing and proposed systems to aid in increasing participation. It was the goal of this study to add information to aid future efforts to enhance public and private individual animal identification and traceability programs involving U.S. cow-calf producers.

Results suggest that cow-calf producers are concerned with the marketability of their beef cattle when considering the design of a traceability system. Furthermore, producers concerned with the cost to the participating producer when implementing traceability systems. Promotion of individual animal traceability should emphasize that COOL is a marketing tool and that COOL and traceability can complement each other in the industry. In the context of future discussions regarding animal identification and traceability program development in the United States, these findings should prove useful in identifying points of contention as well as drivers of voluntary participation (or lack thereof).