

Project: Leveraging Technologies to Enhance Rural Alabama's Leading Agricultural Industries

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Project Description

Poultry and forestry contribute \$43 billion annually to Alabama's economy, with most of the 210,000 poultry and forestry related jobs in rural areas of the state. This project aims at advancing rural Alabama by leveraging and applying modern technology to these two industries. Our initial focus will be on the poultry industry by partnering with stakeholders to learn about key issues/challenges and develop technology solutions to improve the industry's competitiveness and sustainability.

Project Objectives Related to the Poultry Industry

1. Develop technology solutions and market intelligence that will help producers and processors of poultry improve their competitiveness and sustainability;
2. Promote technologies that will advance the poultry industry;
3. Predict, and protect against, cyber-physical vulnerabilities in the poultry industry;
4. Find opportunities to better manage water and wastewater; better manage and upcycle the waste stream emanating from poultry processing facilities for beneficial use; and
5. Facilitate the development of new case studies that provide a vision for new opportunities in the poultry industry in Alabama and the rural South.

Project Activities

Our plan is to schedule informal meetings with key individuals within the poultry industry, tour different sectors of the industry, and conduct semi-structured interviews with those working within different facets of the industry (grower, live production manager, broiler manager, broiler breeder manager, field service personnel, hatchery manager, poultry processing plant manager, feed mill manager, engineer etc.) to learn about central issues relating to technology and potential areas of focus for our research. Data collected from these meetings, tours, and interviews are confidential and bound by the regulations of privacy set by the Auburn University Office of Research Compliance's Institutional Review Board (IRB) guidelines.

Data collected during this initial research phase will be de-identified and coded for themes by the research team to develop potential areas of focus related to technology, market intelligence, and cyber security that will further the competitiveness and sustainability of Alabama's poultry industry.

The results from this initial research phase will help guide our work and ensure that the research team focuses on specific concerns relevant to the Alabama poultry industry.

The meetings with key individuals within the poultry industry will drive the project's future research goals regarding technology. The research team wants to ensure that any technology development or adoption efforts are addressing the most pressing needs of the poultry industry. Research teams will be identified to create or implement technologies that will benefit the various facets of the poultry industry. Our team also hopes to create opportunities to work directly with interested parties in the poultry industry to solve specific challenges from a technology development or adoption perspective.

With respect to technologies that might introduce cyber weaknesses and vulnerabilities, the initial research phase will avoid any questions that might expose existing cyber security issues. However, those individuals participating in the research are encouraged to share any relevant information about their concerns with respect to current and future threats and vulnerabilities, and any requests they may have for research areas we can investigate on their behalf. Of particular interest are security issues surrounding precision livestock farming and the poultry industry.