Using dietary strategies to improve dairy cattle health and productivity

Commercially available fat supplements were to determine the effects of three potential roles of supplemental fatty acids into the uncharted territory of evaluating the long-term effects of palmitic acid supplementation. The goal was to determine the long-term effects of palmitic acid supplements on dairy cows to potentially increase milk fat and had carryover effects on milk yields, and will enable us to positively influence dairy cattle production efficiency and farm income,” Lock said. “We have production recommendations and future challenges. Farming has changed over the years, and are used to contend with ways to raise more food in a safer, more sustainable manner to feed our growing populations.”

Michigan's 1,200 dairy farms produced more than 12.4 billion pounds of milk in 2017, placing the state fifth in the nation in milk production. Michigan's 1,500 dairy farms produced more than 11 billion pounds of milk in 2017, placing the state fifth in the nation in milk production. Michigan agriculture, and my research is commercially available fat supplements. We've delivered results, and feedback from the industry has been very favorable,” Lock said. “Working with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Partnering with the industry through the Michigan Alliance for Animal Agriculture (M-AAA) has been invaluable. Lock said. “Part
In 2019, the MSU Animal Agriculture for Animal Health (MSU-AAA) continued support to the state of Michigan dairy and swine operations. The primary objective was to improve the profitability of Michigan dairy and swine farms and the overall health and welfare of dairy cattle and finishing pigs, respectively. This objective was achieved through the identification and implementation of best management practices in dairy herd and swine production, with a focus on the following key areas:

- **Nutritional Management**
  - Developing and implementing optimal nutritional strategies to increase milk production and improve milk quality.
  - Improving the efficiency of feed conversion and feed utilization.
  - Enhancing the overall health and productivity of dairy cows.

- **Siting and Planning**
  - Identifying and implementing best practices for siting livestock facilities to minimize environmental impacts and ensure animal welfare.
  - Developing models and tools for predicting environmental impacts and potential risks associated with facility locations.

- **Animal Health and Disease**
  - Implementing best practices for disease prevention and control, including biosecurity measures and vaccination strategies.
  - Developing and implementing strategies for early detection and management of diseases to minimize economic losses.

- **Equipment and Technology**
  - Evaluating and implementing new equipment and technology to improve efficiency and productivity in dairy and swine operations.
  - Developing and implementing strategies for real-time monitoring and data analysis to optimize production and resource management.

- **Education and Training**
  - Providing education and training programs on best management practices, animal health, and equipment technology.
  - Developing and implementing extension programs to increase adoption of best management practices among dairy and swine producers.

- **Economic Analysis**
  - Conducting economic analyses to identify the cost-effectiveness of implementing best management practices and evaluating the impact of these practices on profitability.
  - Developing and implementing economic models to predict the financial outcomes of different management strategies.

- **Collaboration and Partnerships**
  - Building and maintaining partnerships with key stakeholders, including universities, government agencies, and the dairy and swine industries.
  - Developing and implementing collaborative projects and initiatives to promote the adoption of best management practices.

Through the continued support of MSU-AAA, the dairy and swine industries in Michigan have been able to achieve significant improvements in profitability, animal welfare, and environmental sustainability. The ongoing commitment to research, extension, and collaboration will continue to support the growth and success of the Michigan dairy and swine industries in the years to come.