Executive Summary of Feasibility Study

A feasibility study examining the proposed Center for Agriculture, Food and the Environment (CAFE) and its ability to respond to major changes in Idaho agriculture was commissioned by the University of Idaho in 2016. CAFE would create the largest research dairy in the U.S. that will address challenges and opportunities associated with animal agriculture and food processing nationwide.

The center would include a 2,000-cow dairy relying on robotic milking machines, encompass 1,000 acres of associated cropland, employ wastewater treatment and nutrient recovery systems, allow development of a food processing facility, offer laboratory space and provide faculty, staff and student housing.

Nationally, animal operations and dairy processing facilities have become larger and more concentrated to take advantage of economies of scale. Trends in southern Idaho magnify those changes with a dairy herd that has tripled in 25 years, vaulting the state’s milk production from 10th to third nationally. Idaho’s food processing industry has parallel this growth, expanding cheese and yogurt production.

The changes put pressure on resource and waste management. CAFE’s research will focus on:
- Efficient water use
- Water and air quality and soil health
- Bio-refining, anaerobic digestion, energy production, recycling and reuse
- Value-added food processing and animal-based byproducts pathogen-free fiber, recovered chemicals, bio-plastics and petrochemical precursor substitutes.

The center’s mission will include examining the sociology of dairy industry and community relations, and business and economic factors.

This approach will improve upon existing sustainable practices to support a profitable and environmentally sound dairy and food industry.

The concept of purchasing an existing dairy was reviewed. Various factors made this option less attractive and unfeasible. Retrofitting an existing dairy was projected to cost $14 million to $18 million more. Other constraints included permitting requirements and scientific needs.

Center operating costs will be higher than for a commercial dairy due to its research focus and resulting labor and operating costs. The university plans to offset higher costs, which appear as an operating deficit when compared with a commercial dairy, through funding from research grants and contracts.

Market fluctuations in milk prices are a big concern for any operating dairy, but can be mitigated using risk management techniques common in the industry. Those strategies will provide educational opportunities for researchers, educators and students across the university.