American Dairy Science Association
Science Policy Areas

I. Human nutrition and health (related to dairy foods consumption)

*Key Words:*
Dietary guidelines, food pyramid, WIC, product labels, fat, protein, calcium, vitamin D, sodium, obesity, fatty acids, CLA, whey protein, health benefits of dairy products, "organic/grass-fed" products

*Key Phrases:*
- Provide data for and support the use of science-based dietary guidelines
- Provide data for and support of meaningful, consumer friendly food labels
- Provide data for and encourage the use of products in a healthy diet
- Assess, validate and educate consumers relative to health benefits of dairy product consumption
- Assess, and validate nutrition and health impact claims of products from milk produced from grass-fed or organically produced milk and provide consumer education on the findings

II. Animal health and welfare

*Key Words:*
Biosecurity, risk assessment, herd health programs, prudent use of antibiotics, housing systems, animal space requirements, ventilation standards, bedding material, maternity area, colostrum management, nutrition program, replacement animal management, reproductive efficiency, animal handling guidelines, worker training for animal care, third party audits

*Key Phrases:*
- Develop and encourage the use of objective criteria for assessing animal comfort and care
- Evaluate bedding materials for impact on animal comfort, safety and health
- Develop and encourage the use of practical and effective biosecurity protocols for production and research facilities.
- Enhance and encourage the use of risk assessment tools for animal health
- Enhance and encourage the use of herd health programs
- Evaluate nutrition and management programs relative to impact on animal longevity, mobility, reproductive performance, and udder health
- Enhance of nutrition and management programs for animals in all life stages
- Develop and encourage the use of training programs for animal care givers

III. Safety of raw and processed dairy foods

*Key Words:*
Risk/benefit of raw milk consumption, pasteurization standards, food-borne pathogens, pathogen survival, product traceability, dairy foods safety, impact of production system

*Key Phrases:*
- Provide data and methodology for risk/benefit comparison of consumption of raw milk and products produced from raw milk, including any impact of production management system
- Assess pasteurization standards relative to their effectiveness for control of current and emerging pathogens
- Evaluate the effectiveness of product aging for pathogen control in “raw milk” products
- Develop and evaluate new technologies for pathogen reduction in dairy foods
Develop and encourage the use of practical, accurate tools for product tracing from farm to fork.

IV. Dairy farms, processing plants, and the environment

**Key Words:**
Air quality, greenhouse gas emissions, odors, water quality, energy use, energy production, carbon footprint

**Key Phrases:**
- Evaluate various dairy production systems and management practices relative to impacts on air quality, odor, greenhouse gas emission, animal waste handling and energy use.
- Develop and encourage the use of new production technologies and management practices that reduce energy use and environmental impacts.
- Evaluate dairy processing plants and processes relative to energy use, air and water quality impacts.
- Develop and encourage the use of new processing technologies that reduce energy use and impacts on air and water quality.
- Enhance and encourage the use of technologies that produce energy as a by-product from dairy production and processing facilities.

V. Biotechnology and its use in dairy industry

**Key Words:**
Recombinant DNA technology, safety of biotechnology, genome, genome mapping

**Key Phrases:**
- Assess, and communicate the safety and impacts of biotechnology used to enhance product yield, animal efficiency and performance.
- Use genome map to identify and select animals with desired characteristics.
- Assess, and communicate the impact of new recombinant DNA technology on milk composition, product quality and yield, animal health, well being and performance.
- Assess the safety of biotechnology and products produced through the use of biotechnology with communication of results to producers and consumers.

VI. Sustainable best practices in dairy industry

**Key Words:**
Best management practices, local production, intensive rotational grazing, intensive production systems, organic, grass-fed

**Key Phrases:**
- Develop and communicate verifiable assessment of “sustainability” and various production systems (e.g., local, natural).
- Evaluate and communicate effectiveness of recommended Best Management Practices.
- Assess, and communicate the economic, environmental and community impact of various production systems.
- Develop and provide tools for grazing systems.
- Enhance sustainability of production systems.

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