

SCIENCE-BASED INNOVATION FOR SUSTAINABLE LIVESTOCK SYSTEMS



Founded in 2021, AgNext serves as the crossroads for producers, industry partners and researchers to come together to innovate real-time solutions for sustainability in animal agriculture.

The Three Pillars of Sustainability:

Social



- Social responsibility
- Well-being of producers and workers
- Animal welfare

Economic



- Economic viability of producers
- Affordability products for consumers
- Rural development

Environmental



- Environmental stewardship
- Mitigate environmental impacts

Purpose of AgNext

Mission: Identify and scale innovation that fosters the health of animals and ecosystems to promote profitable industries that support vibrant communities.

Vision: Animal agriculture is a sustainable component of our global food system by providing economic, social and environmental benefits to Colorado, the Nation, and the world.

AgNext Strategic Priorities

Stewardship and Resilience

Advance human, animal, and ecosystem health to preserve critical resources, improve food security, and foster strong communities.

Data-Driven Solutions

Leverage advanced systems and evidence-based innovations to measure, verify, and validate outcomes to improve decision-making.

Communication and Stakeholder Engagement

Amplify impact through storytelling, scholarly publications, education, and stakeholder involvement and collaboration.

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AgNext Research Areas

Agricultural Economics

AgNext's agricultural economics research generates policy-relevant insights that enhance the sustainability, profitability, and resilience of the livestock industry. This work explores critical issues at the intersection of livestock systems, carbon markets, climate adaptation, and technology adoption. This work informs better agricultural policymaking and expands economic opportunities for producers, while building a nationally recognized research program that supports data-driven decision-making in a changing agricultural landscape.

Dairy Systems

AgNext's dairy systems research integrates environmental science, animal physiology, and disease ecology to support healthier, more resilient livestock operations. By advancing climate-resilient management strategies and identifying the mode of transmission of infectious disease, AgNext works alongside producers to improve animal welfare, operational safety, and productivity. From developing thermally resilient heifer programs to strengthening on-farm biosecurity, this work equips the dairy industry with science-based tools to adapt to environmental challenges and safeguard cattle and human health across diverse operational conditions.

Feedlot Systems

AgNext's feedlot research advances the efficiency, health, and sustainability of beef production by delivering practical, science-based solutions tailored to industry needs. Through rigorous evaluation of nutrition and management strategies in both scientific and commercial settings, this work enhances cattle performance, carcass quality, and profitability.

Grazing Systems and Rangeland Management

AgNext's grazing and rangeland management research brings together transdisciplinary teams to address complex challenges at the intersection of livestock production and natural resource stewardship. Through collaborative, co-designed solutions, this work supports economic opportunities for producers, enhances food security, and promotes responsible management of ecosystems.

Greenhouse Gas Measurement and Mitigation

AgNext leads cutting-edge research to directly measure and mitigate greenhouse gas emissions from livestock systems. With a particular focus in reducing enteric methane, our team deploys advanced sensor technologies and field-based data collection across diverse production environments generating high-resolution, science-based emissions data critical to evaluating and improving the environmental footprint of animal agriculture. These efforts are building a robust, transparent baseline to inform methane mitigation strategies, support carbon market access, and position producers as credible contributors to climate solutions.

System Modeling and Life Cycle Assessment

AgNext is advancing place-based modeling and decision support tools that empower livestock producers to improve productivity, environmental stewardship, and rural vitality. This work will enable the beef and dairy supply chains to accurately report sustainability metrics to stakeholders and consumers. Accurate reporting will allow continuous improvement of the industry and support national and global nutrition security.