

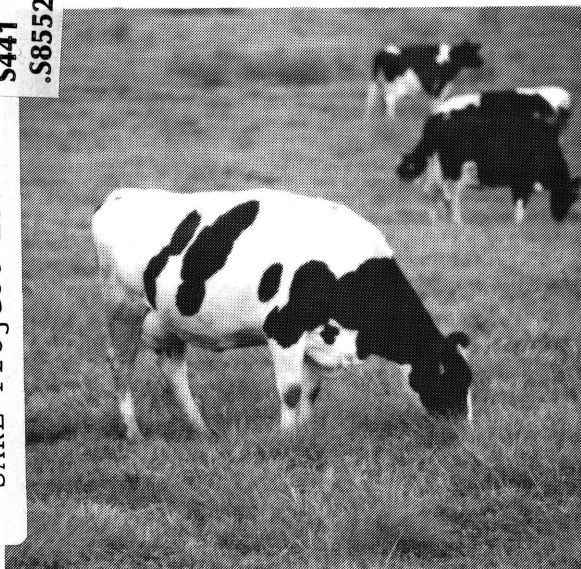
**Center for
Environmental Farming Systems**

Dairy Project Proposal

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Pasture-based dairy systems can provide agricultural diversity and economic stability in rural North Carolina communities.

Project Proposal: A grazing-based, seasonal calving dairy farm will be designed to examine its feasibility as an economically viable farming system.

Objectives:

- 1. Establish an innovative dairy farm system to examine grazing and other herd management techniques that provide environmentally sound and economical milk production to generate an acceptable level of family income and quality of life.**
- 2. Evaluate and disseminate the results among farmers, farm advisors, service industry personnel, students, and others.**

Executive Summary

- Declining farm numbers and loss of local milk supplies are of concern to the dairy industry and community leaders and may affect consumer prices of milk products.
- Innovative dairy systems based on pasture can:
 - be environmentally sound
 - provide adequate family income and quality of life
 - provide unique opportunities for dairy expansion
 - lower investment and operating costs
- Eastern North Carolina offers potential advantages for dairy expansion:
 - productive land at reasonable prices
 - long forage growing season
 - need for alternative economic enterprises
 - less pressure from urban expansion
- The Center for Environmental Farming Systems at the Cherry Farm Unit at Goldsboro provides an appropriate medium to study lower-cost dairy systems and to promote their adoption in the region.
- Cooperation among NCDA, NCSU, and NCA&TSU, agribusiness and the general public can help develop a more stable and economic milk supply in North Carolina.

Cherry Farm Dairy Project Proposal

Statement of Problem: Dairy farm numbers are projected to continue to decline, in part because growing public concerns over water quality and stricter environmental regulations are imposing additional costs on conventionally managed farms. Also, low profits and long working hours of conventional dairies will contribute to further decreases in farm numbers.



Little can be done to improve nationally influenced farm prices. Increased profitability and competitiveness will, therefore, depend on reducing the cost of producing milk.

North Carolina milk production has declined at a slower rate than farm numbers but continued declines threaten the viability of local milk processors. Further reductions in local milk supplies will increase the state's dependence on imported products.

The existing dairy facility at the Cherry farm is in urgent need of repairs. Extensive renovations would be needed to meet the new state water quality regulations and the timing is right to consider alternative approaches.

Opportunities: Feed costs consume about 50 percent of dairy farm gross income. New grazing management techniques allow pasture to provide the majority of forage and significantly reduce the need for purchased concentrates and stored forages. This approach has been shown to reduce feed costs significantly.

Well managed grazing systems should have a positive impact on water quality because of permanent vegetative cover, lower pesticide usage, and lower requirements for manure storage and handling.

Large capital investments are required to establish and maintain conventional dairy systems. Grazing-based systems can be established at a significantly lower investment cost. Lower investment systems may provide a competitive advantage for attracting producers to Eastern North Carolina.



Calving cows in a short seasonal pattern may provide special opportunities for family and part-time farmers. With year-round calving, most chores have to be done every day. In contrast, seasonal calving allows the whole herd to be dry for several weeks which provides for reduced daily workload. Pasture-based, seasonal calving herds hold promise for a significant improvement in the quality of life for the farm family.

Eastern North Carolina has some potential advantages in dairy farming including the availability of productive land at reasonable prices, a long growing season, a need for diversification from traditional enterprises, and less urban pressure compared to other parts of the state.

A collective vision of 100 or more new dairy farms in Eastern North Carolina is possible.

The Concept: The Center for Environmental Farming Systems is dedicated to development of farming systems that are environmentally, economically, and socially sustainable. The Center and cooperating organizations (NCDA, NCSU, and NCA&TSU) are committed to ensuring the viability of North Carolina farms and farmers and in increasing public understanding of agriculture and its relation to the environment.

Lower cost practices must be integrated into practical farming systems and the profitability of pasture-based systems must be adequately documented if producers are to adopt grazing in preference to conventional systems. Potential advantages must be examined in an integrated farm systems approach.

A pasture-based research study at NCSU's Lake Wheeler Road Field Laboratory is envisioned as the first of three steps to stimulate the competitiveness of the North Carolina dairy industry. Experience gained from this project will be applied at the proposed Cherry Farm dairy.

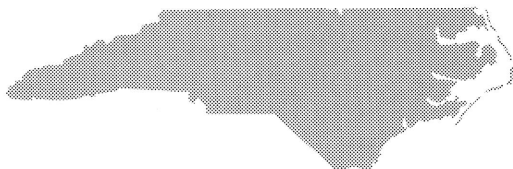
The proposed Cherry Farm project would form the second of the three steps. It would allow innovative grazing and herd management practices to be combined in a whole farm system approach. In this capacity, the farm would be host to numerous groups and individuals.

If the Cherry Farm concept is successful, the third step will include an aggressive economic development program to provide education and to recruit potential dairy farmers to the region.

Significance: Results of work at the proposed Cherry Farm dairy could increase the competitiveness and profitability of North Carolina dairy farms. The resulting growth of the dairy industry would mean diversification of the agricultural economy, increased economic activity in rural communities, and survival of local businesses.

Reduced energy use for pesticides, fertilizer, and field operations will occur if farmers shift from harvested forages and row crops to grazed forages.

Improved water quality should result from reduced soil erosion, reduced use of farm chemicals, and more effective use of manure. Pasture-based systems are expected to have a beneficial effect on animal health, which could improve milk quality and enhance the public image of dairy farms.



For more information contact:

Center for Environmental Farming Systems
Rex Sasser, Superintendent
Box 33, Cherry Hospital
Goldsboro, NC 27530
919-731-3270