

Enhancement of Communities with Pasture-based Dairy Production Systems

René J. Knook,¹ Steven P. Washburn,¹ James T. Green, Jr.,² Gregory D. Jennings,³ Geoffrey A. Benson,⁴ James C. Barker,³ and Matthew H. Poore¹

A collective vision of seasonal, pasture-based dairy farms is being developed for North Carolina. Such dairies should ensure continued local supplies of fresh milk for a growing population while providing economic, aesthetic, and social benefits for communities. Pasture-based dairies have lower feed costs, provide an acceptable nutrient balance of nitrogen and phosphorus, and reduce concerns about odor, pollution, flies, noise, and use of fossil fuel. Seasonal, pasture-based dairies could lower stress and provide more variety and free time for farm workers. Provisions for economical land would allow such dairies to function compatibly in rural and suburban environments. Near larger urban areas, pasture-based dairies could seek long-term land leases within local park systems or special agricultural zones, thereby providing effective public green space. The aesthetic appearance of such farms would make farm vacation enterprises and tours for school children or civic clubs popular.

Profitable local family farms and the sense of community resulting from such cooperation should have lasting social and economic benefits. Differing soil types, climates, and economic conditions dictate needs for functional, local prototypes to demonstrate feasibility of grazing-based dairies to farmers, lenders, and community leaders.

¹Department of Animal Science, North Carolina State University, Raleigh, NC 27695-7621.

²Department of Crop Science, North Carolina State University, Raleigh, NC 27695-7620.

³Department of Biological and Agricultural Engineering, North Carolina State University, Raleigh, NC 27695-7625.

⁴Department of Agricultural and Resource Economics, North Carolina State University, Raleigh, NC 27695-7509.