

Introduction

Dairy farming in the United States is undergoing dramatic changes, driven by both supply and demand factors. Consumption is shifting from fluid milk, generally produced for local markets, toward manufactured products, such as cheese, and dairy-based ingredients produced for national and global markets. Innovations in breeding and feeding systems have led to large increases in the amount of milk that a cow produces. The location of milk production is shifting toward Western States such as California, Idaho and New Mexico. Finally, production is shifting to much larger farms. The number of dairy farms with fewer than 200 cows is shrinking rapidly while very large operations, with 1,000 to 30,000 cows on one site, account for rapidly growing shares of production. Large dairy farms first emerged in the Western States, but are now appearing in traditional dairy States as well.

Earlier Economic Research Service (ERS) and USDA studies document the broad patterns of structural change in the dairy sector (Blayney, 2002; Miller and Blayney, 2006; U.S. Department of Agriculture, 2004). This report focuses on issues surrounding the growing size of dairy operations and the closely linked factor of location. The increasing share of larger farms suggests that they have cost advantages over small operations, but the size of such advantages, and the range of herd sizes over which they apply, is uncertain. Knowledge of each dimension of scale economies is crucial to understanding the structural changes in the industry. Finally, the report evaluates the links among dairy farm consolidation, concentration of cow manure, and manure management strategies and regulations.

This report focuses primarily on conventional (nonorganic) dairy farms. Although our analysis of farm size and locations covers all dairy farms, the cost structure of organic farms is sufficiently different from conventional operations as to require a separate cost analysis.