Capital Budgeting for a New Dairy Facility[1]

C. V. Thomas, M. A. DeLorenzo, and D. R. Bray[2]

INTRODUCTION

Dairy production throughout the United States has changed tremendously over the past twenty years. The trend in every major dairy region has been toward larger and more technologically sophisticated dairy farms. Florida has been a leader in this trend with average herd size increasing from 300 cows/herd to over 500 cows/herd in the past twenty years. In fact, most growth in the Florida dairy industry during the past five years has occurred due to the establishment of new herds in excess of 1,000 cows. The trend of increased herd size is expected to continue in the future.

The Florida dairy industry has also been a leader in technological change. Major improvements and innovations have taken place in dairy cattle housing; environmental modification to reduce heat stress; milking parlors; feeding systems; and waste management systems. Many of these technological advances have also encouraged the trend of larger herd sizes since they are often most profitable when applied on a large scale.

Both factors, increased herd size and increased technological sophistication, have resulted in dairy production becoming an even more capital-intensive agribusiness. The capital-intensive nature of dairy production, coupled with its often low operating margins, makes it essential to formulate a realistic capital budget. Such a budget is a systematic evaluation of the dairy investment's capital expenditures and operating cash flows.

The difficulty of the capital budgeting task can be managed by following three basic steps. Step one: determine the capital expenditures of the investment (e.g., cost of land, cattle, buildings, etc.). Step two: estimate the cash flows (i.e., revenues and expenses) the investment will generate over its expected life. Step three: combine the information gained in the first two steps and analyze the feasibility of the investment. This publication will present an example capital budget built on a computer spreadsheet program, with a subsequent analysis of its feasibility for a new 1,200 cow dairy operation in north Florida. The hypothetical dairy in this publication purchases all replacements. Its crop land and farming operation are designed to meet current waste disposal regulations.

Before starting the capital budgeting process, it is important for the potential dairy investor to consider long range goals. A realistic evaluation of the project will be determined not only by the data generated from the budgeting process, but also by the attitude of the potential investor. The potential dairy investor should answer these questions: Am I entering the dairy business to purely maximize the return from my investment? Or, is my search for profits tempered by a desire for a lower, more stable level of "satisfactory profits" that will, hopefully, result in a better prospect of long term survival for the business? Honest answers to such questions will affect decisions throughout the entire capital budgeting process.

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2. C. V. Thomas, research assistant; M. A. De Lorenzo, associate professor; and D. R. Bray, Extension agent III; Dairy Science Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.