1996

Sunset Dairy's Current Value as an Asset and Revenue-Generating Enterprise: A Capital Budgeting Application

Dawn D. Thilmany
Utah State University

Sterling Liddell
Utah State University

Follow this and additional works at: https://digitalcommons.usu.edu/eri

Recommended Citation
https://digitalcommons.usu.edu/eri/73
Economic Research Institute Study Paper

ERI #96-07

SUNSET DAIRY'S CURRENT VALUE AS AN ASSET AND REVENUE-GENERATING ENTERPRISE:
A CAPITAL BUDGETING APPLICATION

by
DAWN D. THILMANY
and
STERLING LIDDELL

Department of Economics
Utah State University
3530 University Boulevard
Logan, UT 84322-3530

March 1996
SUNSET DAIRY’S CURRENT VALUE AS AN ASSET
AND REVENUE-GENERATING ENTERPRISE:
A CAPITAL BUDGETING APPLICATION

Dawn D. Thilmany, Assistant Professor
Sterling Liddell, Economics Student

Department of Economics
Utah State University
3530 University Boulevard
Logan, UT 84322-3530

The analyses and views reported in this paper are those of the author. They are not necessarily endorsed by the Department of Economics or by Utah State University.

Utah State University is committed to the policy that all persons shall have equal access to its programs and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Information on other titles in this series may be obtained from: Department of Economics, Utah State University, 3530 University Boulevard, Logan, Utah 84322-3530.

Copyright © 1996 by Dawn D. Thilmany and Sterling Liddell. All rights reserved. Readers may make verbatim copies of this document for noncommercial purposes by any means, provided that this copyright notice appears on all such copies.
SUNSET DAIRY’S CURRENT VALUE AS AN ASSET AND REVENUE-GENERATING ENTERPRISE:
A CAPITAL BUDGETING APPLICATION
Dawn D. Thilmany and Sterling Liddell

ABSTRACT
SUNSET DAIRY'S CURRENT VALUE AS AN ASSET
AND REVENUE-GENERATING ENTERPRISE:
A CAPITAL BUDGETING APPLICATION*

1.0 INTRODUCTION

Sunset Dairy Inc. has been operating as an S-corporation since January of 1986. Like most dairies, Sunset employees the latest technologies and strategies to maximize returns. However, it is unique for two reasons. First, unlike most agricultural entities, Sunset does not carry an overhead in inventory. Furthermore, the sole owner of the corporation accumulates all retained earnings with the intention of reinvesting in another dairy operation. It is his stated intention to use the returns on sunset's assets as a method to generate sufficient capital to buy the remaining shares of the other dairy in which the owner has an interest.

2.0 THE MANAGEMENT METHODS OF SUNSET

The management of Sunset has chosen to employ the principles of the aggressive working capital strategy. These principles include holding no overhead in feed supplies, reducing capital investment in equipment by hiring outside companies for waste disposal, feed production and delivery, etc. In addition to a low overhead, Sunset uses the latest technology to maximize milk production, including the use of BST, which has greatly increased production over the last two years.

The economic results of using these strategies has been very positive; sunset Dairy is in a very healthy financial position. In 1994 Sunset had a current ratio of 5.76, a rate of return on capital of 30%, and a rate of return on equity of 41%. (For further explanation of management and financial analysis, please refer to Case One of this study.)

3.0 ACQUISITION OPTIONS AVAILABLE TO MANAGEMENT

Sunrise Dairy is an S-corporation with two different enterprises: milk and feed production. Currently only two individuals, the owner of Sunset Dairy and a partner residing in the same area, hold equity shares in this corporation. Unlike Sunset Dairy, Sunrise raises most of its own feed. One of the

*This work was supported by the Utah Agricultural Experiment Station and is used for Instruction in Economics 535-Agribusiness Management and Cooperatives.
partners is responsible for milk production, while the other is responsible for feed production. These two industries require a large amount of capital investment. Therefore, returns on capital are much lower for Sunrise than for Sunset.

Sunset was originally purchased by the owner in hopes of accumulating the capital necessary to buy the remaining interest held by his partner in the Sunrise Dairy operation. Presently, the manager/owner is evaluating the position of Sunset and deciding what courses of action will best serve his purpose. Three options are currently available to the owner in using Sunset to help purchase the remaining interests in the other dairy. These options are as follows: the owner could simply liquidate the Sunset dairy operation and its assets to generate revenue; second, he could build a new housing facility for $100,000 at the site of the new dairy and keep Sunset’s herd in production; or lastly, Sunset could be left running as it is in the hope that revenues will continue at the current level and generate the capital necessary to compensate the partner for his equity in Sunrise over the next ten years. The estimated present value of equity capital held by the other owner of Sunrise Dairy is $350,000.

3.1 Selling Sunset To Acquire Sunrise

The easiest option available is to sell the dairy outright. The current market value for Sunset (including all of the equipment, herd, and land) is $500,000. The original cost of the dairy plus improvements equals $167,000. Total accumulated depreciation on buildings, equipment, and herd is $83,500. The capital gains tax rate is currently at 28% of the taxable base.

Another option for sale which would avoid the 28 % capital gains tax is to use the 1031 Like-kind Exchange Clause. In this clause it is legal for an agricultural company to sell property and reinvest in other agricultural interests, thereby benefitting the seller through a capital gains tax waiver. In order for this clause to apply, there must be an intermediary or third person involved. One such company located in Logan, Utah is Northern Exchange. Potential concerns with this option include legal issues, fees and paperwork required by the IRS.
3.2 Build New Housing Facility

Another option available, which will allow management to change dairy operations and still keep
the production of his current herd, is to build an additional housing facility at a new site. A new housing
facility will cost about $120,000 in addition to increasing the amount of labor and management required
to maintain the herd. However, milk delivery charges as well as feed delivery, leasing expenses, utilities,
and many other costs will decrease.

Two options exist for obtaining a loan to build a new facility at Sunrise Dairy. A commercial
bank loan will give a ten-year fixed-interest-equal-payment loan with annual payments. (The interest rate
includes 8.75% base interest plus 2.5 % SBA payment). Farm Credit Services, using the Federal Land
Bank, can offer a fixed-payment ten-year loan at 10% interest. However, there will be a $500 loan fee and
5% stock requirement. Both loans would require a 20% downpayment.

Some nonpecuniary advantages exist to encourage lending from the Federal Land Bank. The most
important of these is that the FLB is designed to work specifically with agriculture as a long-term lender.
If, for example, the debtor falls on hardship, the loan payments can be decreased by extending the loan
period. With a reduction in the delivery price of milk, plus elimination of feed delivery charges, the old
herd will increase net income from about $67,750 to $90,000 per year (after taxes).

3.3 Keeping Sunset Running

For the past five years, Sunset Dairy has been a very profitable enterprise. If it is kept intact as
it currently exists, the future may offer a strong financial gain to its owner. However, the belief that the
Farm Bill budget will be cut threatens to eliminate the price supports which are currently administered
through federal marketing orders (FMO's). Utah dairies, including Sunrise and Sunset, will be greatly
affected in the event of decreasing milk prices. For most dairies the break-even point is at approximately
$8 per hundredweight. In order to survive, the majority of the dairies will have to decrease overhead and
capital investment in much the same way that Sunset Dairy has already done.
The third and final option is to keep the Sunset operation unchanged and use revenues to accumulate capital for the outright purchase of Sunrise. In 1994, net income from Sunset was at $67,762.99. However, policy changes in the Farm Bill of the United States may remove current price supports for the milk industry. The probability distribution of price changes are as follows: a 15% chance that net income will increase to $80,000; a 50% chance that net income will remain unchanged at about $68,000; and a 35% chance that net income will decrease to $50,000. Assume all net income figures are after-tax.

Net Present Value Analysis

1) Calculate the NPV for each of the options using a discount rate of 12% and ten-year investment horizon.
   A. Assume capital gains taxes will be paid at the time of sale for Option 1.
   B. For Option 2, first determine whether you should use the FCS or commercial bank lending option. Once you have decided on a loan, determine the NPV for Option 2.
   C. Assume the probability distribution of net incomes will only influence Option 3. (Solve using a weighted average equation)

2) A. How might management considerations affect the owner's decision? (see the other case study of Sunset Dairy).
   B. What other non-monetary considerations, discussed in this study, may affect the investment decision?
   B. What would be your recommendation to the owner based on what you have learned from the questions above?
Sunset Dairy's Current Value as an Asset and Revenue-Generating Enterprise: A Capital Budgeting Application

Dawn D. Thilmany and Sterling Liddell

March 1996

The authors are assistant professor and student in the Department of Economics, Utah State University, Logan, UT 84322-3530. This work was supported by the Utah Agricultural Experiment Station and is used for Instruction in Economics 535-Agribusiness Management and Cooperatives.
1.0 INTRODUCTION

Sunset Dairy Inc. has been operating as an S-corporation since January of 1986. Like most dairies, Sunset employs the latest technologies and strategies to maximize returns. However, it is unique for two reasons. First, unlike most agricultural entities, Sunset does not carry an overhead in inventory. Furthermore, the sole owner of the corporation accumulates all retained earnings with the intention of reinvesting in another dairy operation. It is his stated intention to use the returns on Sunset's assets as a method to generate sufficient capital to buy the remaining shares of the other dairy in which the owner has an interest.

2.0 THE MANAGEMENT METHODS OF SUNSET

The management of Sunset has chosen to employ the principles of the aggressive working capital strategy. These principles include holding no overhead in feed supplies, reducing capital investment in equipment by hiring outside companies for waste disposal, feed production and delivery, etc. In addition to a low overhead, Sunset uses the latest technology to maximize milk production, including the use of BST, which has greatly increased production over the last two years.

The economic results of using these strategies has been very positive; Sunset Dairy is in a very healthy financial position. In 1994 Sunset had a current ratio of 5.76, a rate of return on capital of 30%, and a rate of return on equity of 41%. (For further explanation of management and financial analysis, please refer to Case One of this study.)

3.0 ACQUISITION OPTIONS AVAILABLE TO MANAGEMENT

Sunrise Dairy is an S-corporation with two different enterprises; milk and feed production. Currently only two individuals, the owner of Sunset Dairy and a partner residing in the same area, hold equity shares in this corporation. Unlike Sunset Dairy, Sunrise raises most of its own feed. One of the