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**ECONOMIC ASSESSMENT OF FARM MANAGEMENT OPTIONS  
FOR SCHRADER MAINS LIMITED**

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## **Introduction**

My full name is Antony Ian Robertson. I have a Bachelor of Agricultural Science (Honours) from Lincoln, awarded in 1988.

Since graduating, I have been a sharemilker for one season, a Rural Bank manager for approximately 18 months and a specialist Dairy Farm Consultant for approximately 20 years. I am currently the owner/operator of The Genesis Group Ltd, which does rural and business consulting, for dairy farming businesses.

I have worked with Hank and Sandra Schrader for 15 years. I have seen them progress through the dairy industry from sharemilker to farm owner. They are hard workers and run a profitable, high grass utilisation dairy business. They are people of high integrity who value the people that surround them and have an absolute passion to improve the farms and stock that they are responsible for.

I have helped the Schraders over the years with farm management advice, getting the best from their management staff and helping formulate business strategy.

## **Scope of this Report**

An overview of the proposal (dairy conversion);

- Financial analysis of the current activities;
- Financial analysis of the proposal;
- The economic implications of the proposal;
- Economic benefits to the community arising from the proposal; and
- Financial analysis on alternative activities that could occur on site.

## **Overview of Proposal to Environment Southland for Dairy Conversion etc.**

Currently the farm in question operates as a dairy grazing unit. All the young stock from the Schraders 530 cow dairy farm at Tapanui and their 360-cow dairy farm at Woodlands are grazed here until they are 20 months of age. The Tapanui stock normally return to the dairy farm at the end of April, while the Woodlands stock remain through the winter until just prior to calving. In addition, another 170 mixed age cows from Woodlands are wintered here along with some sundry beef stock.

The standalone budget for the current grazing unit assumes current stocking levels remain. I have assumed income for the block based on likely long term grazing rates and beef returns. I have excluded any interest charges and drawings. I have allowed a staff cost to represent the work involved in managing the property, although no staff are specifically employed to manage this property. The current grazing unit returns a \$50,696 profit before interest and tax. Given that the property is currently worth in the vicinity of \$30,000/ha, this represents a return on capital employed of 1.5%, which is a poor use of capital.

Hank runs an efficient management system, which is based on cropping to graze stock through the winter months. The main concern on this block is that during a wet winter, crop on these soils can be wasted and soil damage can occur. This is one of the reasons that it would be preferable to convert to dairy farming as this reduces the future cropping area and the associated risks.

The Schrader's business strategy involves establishing small to medium sized dairy farms run by highly motivated young dairy farming couples. The Schrader's aim to help these young people progress through the dairy industry, as they have done. Converting this farm to dairy fits with their strategy and would also become part of their ongoing family succession process. Since purchasing the property there have been significant improvements carried out. Fencing, drainage, water reticulation, fertiliser, regrassing, house renovation and cattle yards are among the many improvements. From a practical viewpoint conversion to a dairy farm only requires a cowshed, two main sections of track and an effluent disposal system. The capital expenditure to establish these will be in the order of \$1million.

### **Financial Analysis of the Proposal and Alternatives to Proposal**

The steady state budget for the proposed dairy farm operation shows a \$209 751 surplus. As a dairy unit, the farm would be worth in the vicinity of \$40 000/ha, representing a return, including an allowance for livestock values, on capital employed, of 6.0%, before any interest cost. The budget makes the following assumptions:

- Status quo milk price of \$5.50/kgMS. The major rural trading banks are working on status quo milk prices of \$5.50-\$5.80/kgMS.
- Allowed additional debt of \$1,000,000 to cover the remaining expenses required to convert the farm to dairy. Also, allowed \$200,000 to cover some stock purchases. The Schrader's will supply 60% of the stock from their other operations. Existing machinery is already in place. This enables comparison to the current grazing operation which requires no further capital spending or debt. Assumed an interest rate of 4.5%, which represents a low future interest rate environment.
- 30 aside herringbone shed is built to enable the farm to be run as a one-man operation.
- All cows wintered off. All young stock grazed out.
- Farm working expenses sit at \$3.65/kgMS. This is consistent with the Schrader's normal operating system. The farm is fully maintained within this cost structure
- I have assumed no Dairy Company shares are purchased, but even if they were, this would be cash neutral to the final result, as currently dividends exceed the cost of capital. The capital detailed in the table simply represents an ongoing annual allowance for operating capital.

|                   | <b>Existing Operation</b> | <b>Dairy farm</b> |
|-------------------|---------------------------|-------------------|
| Income            | \$265,955                 | \$748,428         |
| Farm expenses     | \$205,259                 | \$474,483         |
| Extra interest    |                           | \$54,000          |
| Capital           | \$10,000                  | \$10,000          |
| Surplus           | \$50,696                  | \$209,751         |
| Return on Capital | 1.5%                      | 6.0%              |

### Benefits to the Community of the Proposal

Currently the property employs no outside staff as Hank and Sandra, along with the Woodlands dairy farm staff occasionally, carry out any work required on the application site. Conversion to a dairy farm would see the employment of a full-time manager along with the equivalent of a further 2/3 staff member. This is a significant level of job creation given the tough economic conditions currently being experienced in Southland.

Farm working expenses of \$474 677, includes \$100,000 of new wages, resulting from the new dairy farm, as money into the local community. The wages represent a manager and part time staff member equivalent to 2/3 of an annual staff wage.

This compares with \$205,259 of farm working expenses from the existing grazing operation. In addition, income from the proposed dairy farm of \$748,428 compared to the current \$265,955 earned from the property means an extra \$448 425 of income is created and enters the local economy primarily via whichever Dairy Company the Schraders choose to supply.

These direct increases are multiplied further through the increased work for Dairy Company staff, fertiliser company staff, farm service providers, salespeople etc... who then themselves spend in the local economy. There doesn't appear to be any local studies but several American articles state every dairy farm dollar spent is multiplied 2.5 times in the local economy.

### Alternatives

If the dairy farming proposal doesn't go ahead, the only real option to improve the economic return from this block is to have a more intensified dairy support unit. The farm is not suitable for sheep farming currently and would be too expensive for a sheep farmer to convert. Wintering mature cows is the highest return of the various drystock options so the area of crop for this purpose would need to expand. I have carried out a financial assessment of the Specialised Grazier option modelled by Mrs Hunter.

This scenario generates an \$86 850 surplus and is a 2.6% return on capital, which is still a low return on capital. Assumptions are as follows:

- 16ha first year chou, 16ha 2<sup>nd</sup> year chou, 16ha Fodder Beet, and 16ha of new grass.
- 1000 bales made on farm and no feed purchased.
- 150 weaners and 150 yearlings grazed through the season and 900 cows wintered.
- Under this scenario no additional capital is required.
- An additional \$5000 is spent on staff to cover the extra stock work required in the winter.

|                   | <b>Existing</b> | <b>Specialised</b> | <b>Dairy farm</b> |
|-------------------|-----------------|--------------------|-------------------|
| Income            | \$265,955       | \$353,950          | \$748,428         |
| Farm expenses     | \$205,259       | \$256,779          | \$476,677         |
| Extra interest    |                 |                    | \$54,000          |
| Capital           | \$10,000        | \$10,000           | \$10,000          |
| Surplus           | \$50,696        | \$86,850           | \$209,751         |
| Return on Capital | 1.5%            | 2.6%               | 6.0%              |

**Conclusion**

The Schrader's plan to convert the farm to dairying provides the greatest economic return from the application site. Return on capital from the current land use lifts from 1.5% to 6.0% under a dairy farming system. In terms of actual cash the Schrader's would generate \$159,055 per year of additional cash profit under the dairying scenario compared to the current system.

A more profitable Specialist Grazier option has also been assessed. This farm system will be deployed on the property in the event that resource consents are not obtained. This alternative will generate \$122,901 less profit than the proposed conversion and return 2.6% on capital relative to 6.0% from the dairy conversion.

The current land use and specialist grazier scenario's do not generate any further employment which reduces the potential economic and social benefits that accrue from the activities on the site.

**Antony Ian Robertson**

**Date:** 15 March 2017