

Key Performance Indicators Discussion Document

May 2012

Summary (from Dan Nudell's Final Report):

Combining the information from both years of the project provides some clues to KPI's that are consistent in both analyses of the data. A repeat of some of the characteristics of financially successful sheep producers over both years and both types of data analysis gives more credence to the conclusions drawn.

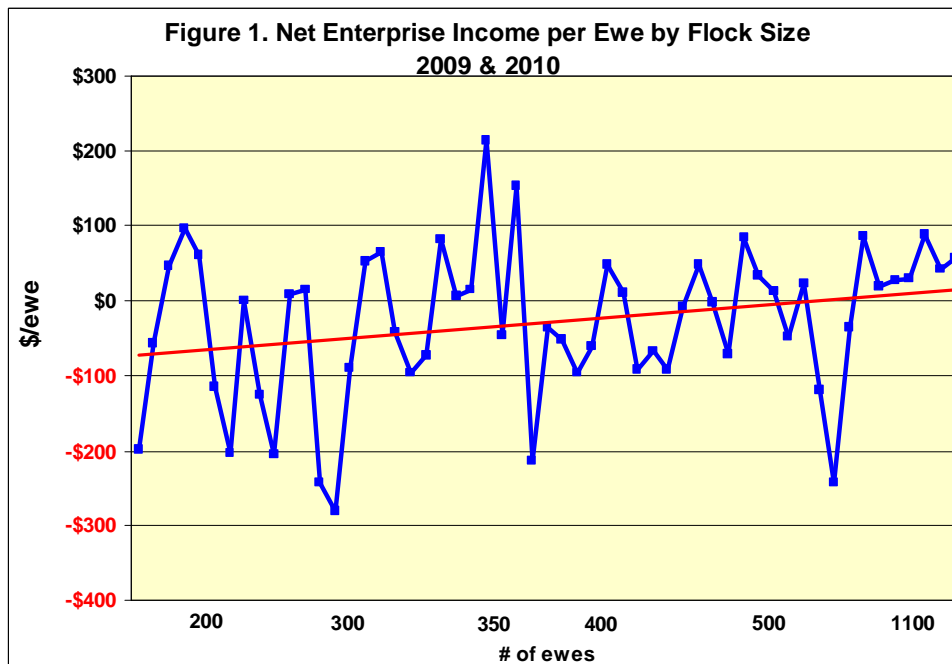
A chart of the potential KPI's would look like this:

Ontario Sheep Producers Key Performance Indicators						
Survey Year 1	Large Flock	Use of Pasture	Flock Feed Cost	Accelerated Lambing	Use Records	Use Mgmt Skills
Financial Year 2	Ending Flock Size	Larger % Pasture	Fence Expense	Transportation Expense		
Combined	Large Flock Size	Extensive and Efficient Use of Pasture	Cost Control			

This discussion document will explore the combined KPI's identified as the most important KPI's derived from this dataset:

1. Maintaining a sufficient flock size. (there is not enough data to estimate what this is, just that larger flock size correlates with larger profit)

While there is not sufficient data to make definitive statements on sufficient flock size some trends can be observed. For discussion purposes the following Figure 1 presents the net enterprise income per ewe as the flock size increases. This is the combined data from both 2009 and 2010 so there are 55 individual farm results reported. Each data point on the chart represents the net income of a flock in 2009 or 2010. The red line represents the trend line which shows that profitability increases as flock size increases. This chart does provide a few points to ponder about size and profit.



First, while it is trending upward the slope of the trend line is not convincingly steep. This would suggest that there is a correlation between flock size and net income but increasing flock size is not a guarantee of financial success. This is evident in the fact there are large and small flocks making money and large and small flocks losing money.

Second there is tremendous variability in the data which again makes it difficult to make definitive statements on the 'right size' for a flock.

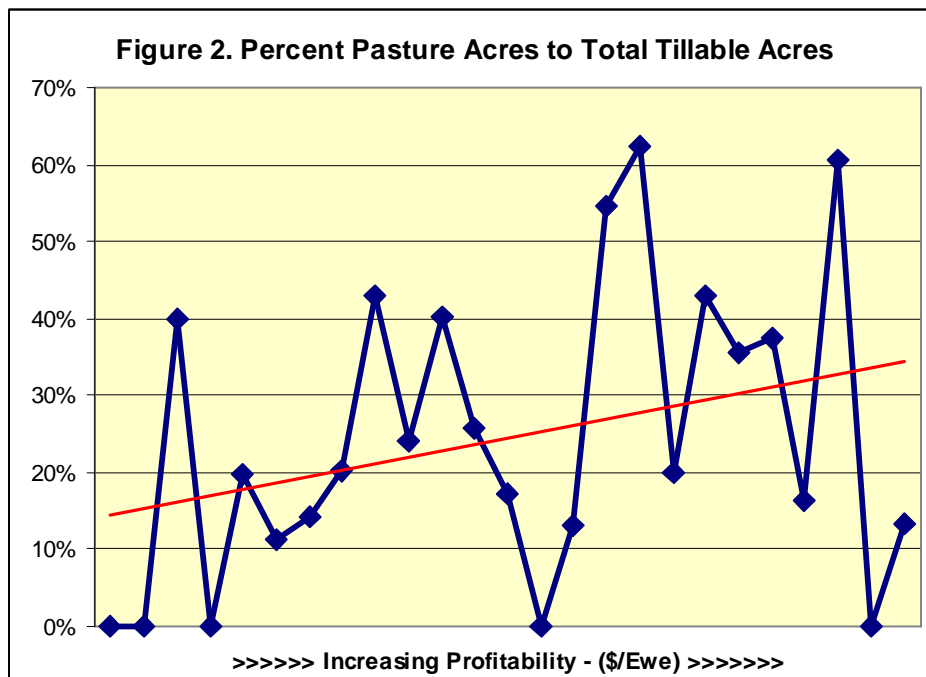
Third there seems to be something happening at the 400 ewe flock size. Flocks smaller than 400ewes had greater variability in income. As flocks increase beyond 400 ewes that variability becomes smaller. Apart from the couple of farms that dipped around the 800 flock mark the highs and lows are less extreme beyond the 400 ewe size. With a third year of data this economies of scale can be explored further with the addition of another 20-30 datasets.

2. Make extensive and efficient use of pasture.

The management data studied in Year 1 identified pasture utilization as a potential key performance indicator (see the commentary on Page 5 of Summary Report). The financial data of Year 2 confirmed this strong connection.

Extensive use of pasture in the financial data was measured by looking at how much of the tillable land was dedicated to pasture. The higher the percentage in the vertical axis of Figure 1 the more pasture land the farm used. For example, someone at 40% has 40% of their tillable land in pasture. As you move along the bottom scale from left to right the individual flocks are getting more profitable.

The one caveat to this approach is there may be some farms that use some hay land as pasture after the first or second cut. This use of pasture is not captured in this percentage. However there is still a strong correlation between the amount of land dedicated to pasture and profitability. The red line again is showing the trend of increasing pasture usage as profitability increases. This relationship is actually stronger than the connection between flock size and profitability.

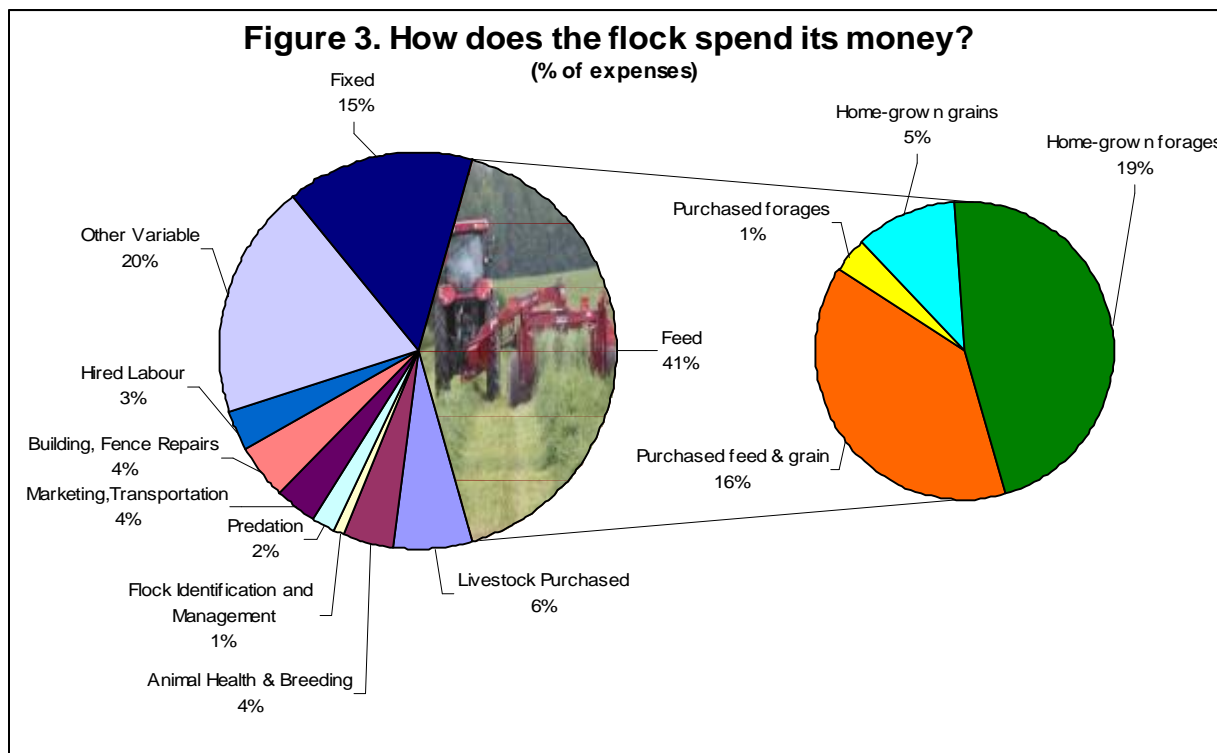


The average of the 25 farms in 2010 had a pasture usage of 24% while high profit farms averaged 34%. This means that one third of their tillable land was dedicated to pasture. Three of the high profit farms were over 50%.

3. Cost Control is critical (I think that fence cost and transportation cost are proxies for cost control rather than specific KPI's).

Cost control is a broad term and does not give much direction for a manager to what they could do to manage costs. Figure 3 is presented as a starting point of deciding what areas may need the most attention. Identifying those costs that represent the largest percent of your expenses is a good first step in deciding where to focus your management efforts.

Feed costs at 41% commands the largest percent of input expenditures. This likely comes as no surprise. The pie to the right further breaks down feed costs into home-grown and purchased forages and grains. Half the feed costs are associated with forage and the other half grain. The pasture component as discussed in KPI 2 plays a major role in controlling feed costs.



From Dan's analysis fence and transportation cost were identified as significant areas. At 4% of costs they do not represent a large portion of total costs as an individual line item on the income and expense statement but they are one of the largest single expenses after feed. This is likely why Dan felt they were proxies for cost control rather than specific KPI's.

It is important to keep in mind that the analysis is looking for differences between the high profit group and the rest of the flocks. So this is not suggesting that some of the other expenses are not important but there was not a significant difference between the two groups.

The 3 main costs identified in the KPI's around cost control are feed (pasture), fence and transportation. Table 1 presents a look at the results for those cost areas for the High and low profit groups of 2009 and 2010.

Table 1. Costs per Lamb Produced (Page 3 of Financial Summary Report)

Cost	2010		2009	
	Low 10 Farms	High 10 Farms	Low 10 Farms	High 10 Farms
Feed cost total of costs below	106.70	69.00	126.06	75.28
Purchased Grain	33.61	31.69	36.22	32.53
Purchased Forage	3.73	2.74	4.09	3.42
Home-grown Grain	12.84	6.12	20.66	5.78
Home-grown Forage	56.51	28.44	65.09	33.55
Building, Fence Repairs	18.78	5.98	12.65	3.48
Marketing/Transportation	7.94	7.02	6.18	5.47

Home-grown forages were the largest feed cost item and also represented the largest difference in costs between the high profit and low profit. Low profit farms spent almost double in home-grown forages.

Building and Fence repairs also saw a significant difference in costs between the two groups. Marketing and transportation cost differences were less pronounced.

Looking at Table 1 it would be reasonable to conclude that time spent on home-grown feed and building and fence repairs may be time well spent.

The first question to ask is, Is that right? There is tremendous variability in the data so as a first step the recording of the feed costs and the amount of feed fed reported for this project should be verified correct. Does the building and fence repairs seem reasonable and what are the high profit farms doing differently?

This question will be explored further in the webcast series and it is hoped that through good, active discussion that some actionable steps will emerge for the participants of this study and the Ontario Sheep Industry as a whole.