



INFORMATION TO IMPROVE THE BOTTOM LINE!

How much does it cost to grow your crops?

W.J. Grexton, Manager, Herd Management Services

There are four variables related to accurately calculating the cost to grow home grown feeds: **Direct cost; Overhead cost; Yield; Quality**

Most of us know how to find the direct costs. Seed, fertilizer and other input costs are pretty easy to calculate. However, for crops like hay that last three or four years, to get an accurate cost, these expenses need to be allocated over that time period as well. However, some direct costs are harder to find, for example fuel and machinery repairs are direct costs to get the crop harvested. How do you get an accurate value for those expenses for each crop?

Overhead costs are even harder to calculate. Machinery depreciation for example, needs to be taken into account because that is part of the cost of harvesting the crop. A combine that was a bargain to purchase but harvests only 100 tonne per year can add a lot to the cost of a tonne of grain. Land value and storage costs are to be considered and this changes with the location of the farm and sometimes with the yield potential. These costs are part of the cost of growing feed and must be considered.

The third variable is Yield. Earlier cut hay for example will give better quality but usually with lower yield. It is true that you may get an additional cut if you cut early enough but that means additional harvesting expense. So based on yield alone it appears that it does cost more/tonne to grow and harvest a higher quality crop. This factor needs to be taken into account when determining the cost of producing feed. In addition, many times our yields are not very accurate. We tend to remember the best yielding field instead of the total or average. Harvest and storage losses also add to the cost of producing a tonne of feed for our cows.

Quality sometimes comes at a cost of reduced yield. But it is also a function of storage practices and

feeding practices. The reality is that feed is only as good as the nutrients our animals get from it. If they don't get it, there is no value.

So where am I going with this? **It is harder to calculate the cost to grow one tonne of feed that most people realize.**

ROF uses standard prices for two reasons: First, to make it easier to collect information, and second, to allow some comparison across farms. However, if you want to try and calculate your cost to grow feed, the ROF program has a Crop Cost Module you can use. It will not answer all your questions but will give you a good start to determining which crops you are growing at a profit and which crops you may be better off to purchase.

You are asked for seven key crop costs from your last income statement allocated to each crop, the total number of acres of crop harvested and the total yield. The program focuses on 3 areas (see below):

1. Estimated yield of forage compared to amount fed. Are the two reasonable, or is your estimate of yield wrong?

2. Direct cost of growing four key crops and compares that cost to other farms. For your individual farm, you need to add your overhead costs to get a total cost to grow the crop.
3. Comparison of your direct cost and the ROF program *Standard Feed Price*. How much margin do you have for overhead cost?

The cost to feed cattle is very much influenced by your ability to grow economical forages and grains. A good businessman will consider whether it is smarter to purchase a feed or grow his own. In order to make that decision, you need to know your actual cost. The Crop Cost Module can help you with that.

The Crop Cost Module is part of the ROF program and is included in the annual cost of the program. For those who want only to use the module, it can be done for \$12.00 for a single use but should be included with two or three ROF to get the comparison of feed fed versus estimated yield.

Input forms can be printed from the website, but the data needs to be entered into the program by DHI Herd Management Specialists. Talk to them about details.

Direct Crop Cost Report

Name: R.R. # 3 Guelph
DHI Staff
Email: 0

Date of Entry: 11 Nov 03

Estimated Total Cost to Feed for 1 Year (ROF #) \$97,089

Total Direct Cost of Home Grown Feeds \$44,981

ROF Information

Average # Cows 56.8
Average Milk /Cow 36.3
Average Cost /Cow /Day (ROF) \$4.68
Average ROF /Day \$16.97

Feed/Crop Totals

Total Tonnes DM Grown 593
Total Tonnes Forage DM Grown 437.5
Total Tonnes Forage Intake (ROF) 257.3
Difference 180.1

Comparison of Your Direct Cost and Standard Prices Used

	Hay Crop	C Silage	Corn	Cereal Grain
** Your Direct Cost (\$ /T)	\$51	\$54	\$177	\$116
Standard Prices Used (\$ /T)	\$125	\$75	\$100	\$115
Difference (to Cover Overhead Costs)	\$74	\$21	-\$77	-\$1
** Amt Available /Acre for Overhead	\$169	\$80	-\$150	-\$1

** other costs such as overhead, labour, depreciation need to be added to the direct cost to arrive at a Total Crop Production cost.

ROF in 2006-2007...did you know?

The ROF program can be used as an unbiased management tool to measure sudden changes in your herd due to seasonal effects, feed changes, new unfermented forages, heat stress, or a change in feed supplier. It can be purchased as a single test or package.

Package: Unlimited ROF: \$74.90 a year (\$70.00 plus GST)

Single Test: \$12.84 per entry (\$12.00 plus GST)

There are several ways in which you can enroll.

- 1) Sign up by contacting DHI and we will send you the Input sheets, which you fill in and then email, fax, or mail it to us. We will enter the inputs in the ROF program and send you the reports and comparisons available.
- 2) For those who enjoy working on the computer, you can register, enter

data and print the reports online by going to www.canwestdhi.com/rof.htm.

You will find all the information required to do your own ROF such as:

- a) Information on the ROF program
- b) How to enroll your herd on ROF
- c) ROF program user instructions
- d) Sample reports and newsletters

ROF offers analysis of the Milking Cow, Dry Cow and Replacement Heifers in addition to the Direct Crop Input Cost analysis.

It is no longer compulsory to be part of an ROF management club. You don't even have to sign up for a full year and the program is available to all dairymen.

Seasonal effects on ROF

Dick Keunen, Herd Management Specialist

Daily milk production per cow and its components have a tendency to fluctuate quite a bit throughout the year, with the winter months being the most consistent. Looking at previous ROF data we see that there is quite a change every year between spring returns and fall returns.

Feed costs and milk components prices are updated in early October every year, and this often tends to give a false sense of improvement. Is your improvement in the fall due to increased performance or to price changes? Usually the milk prices have increased and therefore you have higher revenues per cow and an improved ROF.

However, when I compare milk components shipped, I see a lower average in October 2005 compared to April of the same year. ROF in that time period has only changed very little. Yet if we compare the components shipped per cow between the two test periods we see the fat down by 0.08 kgs, (\$0.74) and the protein down by 0.05 kgs. (\$0.35) per cow per day. Combined, this translates into \$1.09 per cow per day. For a 100 cow herd that amounts to \$3,270 per month less revenue. Depending on when the production dropped the accumulated amount over several months could total well over \$10,000.

Because of this drop in production, it required an extra 7 cows to fill 100 kgs. of

quota. At an average feed cost of \$3.50 per day that translates into an additional \$25 feed cost each day or \$750 per month. That is the additional FEED cost of maintaining those extra cows in order to fill quota. The other costs associated with keeping these cow could be as much again resulting in almost \$1,500 per month to make up the lost income.

Are these production losses due to ration changes, sudden forage changes, unfermented haylage, heat stress, and/or unfermented corn silage?

What changes could you implement to avoid these extreme fluctuations? It could save you anywhere from \$1,500 - \$3,300 per month. DHI herd management services can advise you on some of the management issues, to help minimize large seasonal reduction in components.

ROF Results from 2005

Month	ROF	Cost	Kg Fat	Kg Prot	Milk/Cow
April	\$13.72	\$3.64	1.16	.98	29.4
October	\$13.64	\$3.46	1.08	.93	27.9
Difference	-\$0.08	-\$0.18	-\$0.08	-\$0.05	-\$0.50

ROF benchmark results show...

When we look at the results of different forages that make up more than 50% of the forage in the ration, we see the value of growing excellent feed.

Category	Tests	ROF Results by Forage (2005 - 2006)				
		ROF	Cost	Milk/Cow	# Cows/100 kg	ROF Diff/Mth
Excellent Corn Silage	120	\$14.63	\$3.69	30.1	84.9	+\$2,310.00
Excellent Haylage	113	\$14.42	\$3.62	29.7	85.6	+\$1,680.00
Good Haylage	133	\$14.13	\$3.55	29.3	87.1	+\$810.00
Good Corn Silage	74	\$13.86	\$3.44	28.5	88.4	-

There were not enough tests of other qualities or forages to make a valid comparison.

Notice that even though the cost of feeding the cows is less with poorer feed, the return is even lower. That \$1,000 to \$1,500 per month difference - times the number of months that the feed is used - adds up to a lot of profit lost due to poor quality.

How much do people change from test to test? Let's look at a comparison of changes in ROF from previous tests done by the same farm.

ROF Results - Looking at Variation from Previous Test (2005 - 2006)

Change since last month	No. of Tests	Average ROF Change	Cost
<\$2.00	98	\$2.90	\$3.66
\$1.00 - \$2.00	168	\$1.46	\$3.56
\$0.50 - \$1.00	170	\$0.72	\$3.64
\$0 - \$0.50	231	\$0.23	\$3.61

The results show that only 34% of the tests changed less than \$0.50 per cow per day. Almost 15% of the tests had a change that averaged \$2.90 per cow per day - that is over \$8,000 per month. The other 51% had changes that ranged from \$0.75 to \$1.50 per day. At these levels this should be a signal that closer scrutiny may be necessary.

Where does your herd fit in? How much change is happening? Even \$1.00/cow per day four times per year amounts to \$12,000 in potential lost revenue. It pays to keep a close look at costs and returns.