



PLANNING FOR PROFIT



Province of British Columbia
Ministry of Agriculture, Fisheries and Food

**Dryland Grass Forage
(Established)
Comox Valley
Summer 1994**

Agdex 120 - 810

Introduction

The planning process provides producers with the opportunity to look at their operation as a group of distinct enterprises. Alternative enterprises should be evaluated on the basis of **Contribution Margin**, taking into consideration resource constraints, market opportunity, risk and uncertainty.

The **Contribution Margin** must provide funds for interest, overhead and other indirect expenses as well as a return for living expenses, loan repayment and investment. These items should be included in the overall farm plan which will include a **Projected Income Statement** and **Projected Cash Flow Budget**.

Key Factors Affecting Profit

	Target
Quality - Hay	Min 65% T.D.N. Min 18% Crude Protein
- Silage	35% Dry Matter Min 16% Crude Protein

Forage yields are affected primarily by the supply of nutrients and the availability of moisture to the crop. Efficient use of nutrients from fertilizer and or manure will result in optimum yields without any harmful effects such as high nitrate levels. Forage quality is affected most by stage of maturity at harvest. Proper handling and storage facilities will maintain good feed quality. Irrigation will enhance yields. To assess the full impact of forage production, a contribution margin analysis should also be carried out for the establishment of the forage crop.

Marketing Alternatives

A limited opportunity exists to market grass silage. The majority of the crop is produced for consumption on the farm. Farm operations would realize income when forage is transferred to a livestock enterprise. Hay can be marketed locally to individuals with small livestock holdings on limited acreages.

Cash Flow Timing

	J	F	M	A	M	J	J	A	S	O	N	D
%Inc	10	10	10	10	10	10	10	10			10	10
%Exp			15	20	20	20	20	20	5			

The above information indicates the timing of monthly flow of funds included in the contribution margin only. A complete **Projected Cash Flow** should include indirect expenses, capital sales and purchases, loans and personal expenses.

Labour Times

Fertilizing	40 - 45 min./acre
Harvesting	3 - 3 1/2 hours/acre

The above indicators are based on the actual field time with the equipment complement used in this budget, which is assumed to be in top operating condition. Individual operators may vary from this depending on equipment size, land and operator expertise.

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ESTABLISHED GRASS FORAGE

Target Yield - 3.5 Tons D.M./acre

Contribution Margin 1 Acre of Grass Forage Comox Valley

Income

	Yield	Price	Unit	Income
Grass Silage	7.5	\$40.00	ton	\$300.00
Grass Hay	1.0	140.00	ton	140.00
Total Income				\$440.00

Direct Expenses

	Quantity	Price	Unit	Expense
Fertilizer				
0 - 0 - 60	150	\$.15	lb.	\$22.50
11 - 52 - 0	130	.23	lb.	29.55
46 - 0 - 0	285	.15	lb.	42.75
Lime	.5	60.00	ton	30.00
Manure	10	0	ton	0.00

Machinery Costs

Land Preparation	1.65
Fertilizing	6.50
Harvesting	41.70
Trucking	7.35

Crop Supplies and Service

Silage Additive	7.5	3.50	ton	26.25
Silo Cover	7.5	.15	ton	1.15
Twine	1	2.50	ton	2.50

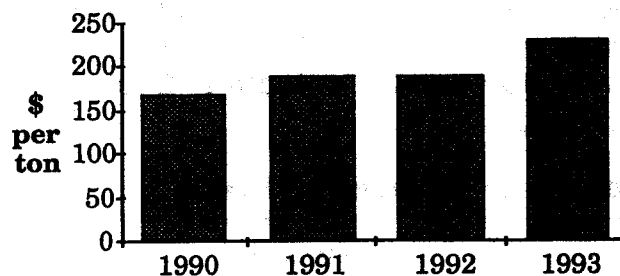
Total Direct Expenses \$211.90

Contribution Margin \$228.10

Buildings & Machinery Replacement Cost Total Farm Size - 90 Acres

Buildings	\$65,000
Power Machinery	33,000
Field Equipment	58,200
Harvest Equipment	92,300
Vehicles (incl. used dump truck)	<u>58,000</u>
Total	\$306,500

Comox Valley Alfalfa Hay



Contribution Margin - Sensitivity Analysis

The table below lists the changes to contribution margin as yield of hay changes and price received varies.

Price \$/ton	Hay Yield Tons per Acre			
	.8	.9	1.0	1.1
100.00	169	178	188	198
120.00	185	196	208	220
140.00	201	214	228	242
160.00	217	232	248	264

This information is provided as a guideline only. Target yield indicates above average production. An individual crop plan should be developed by each producer. Planning forms may be obtained from your local office of the B. C. Ministry of Agriculture, Fisheries and Food.